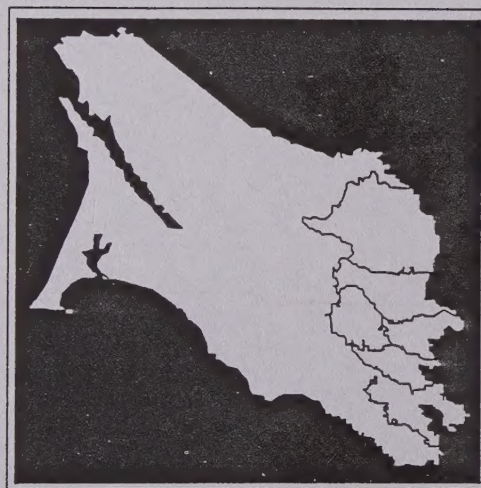


The Marin Countywide Plan



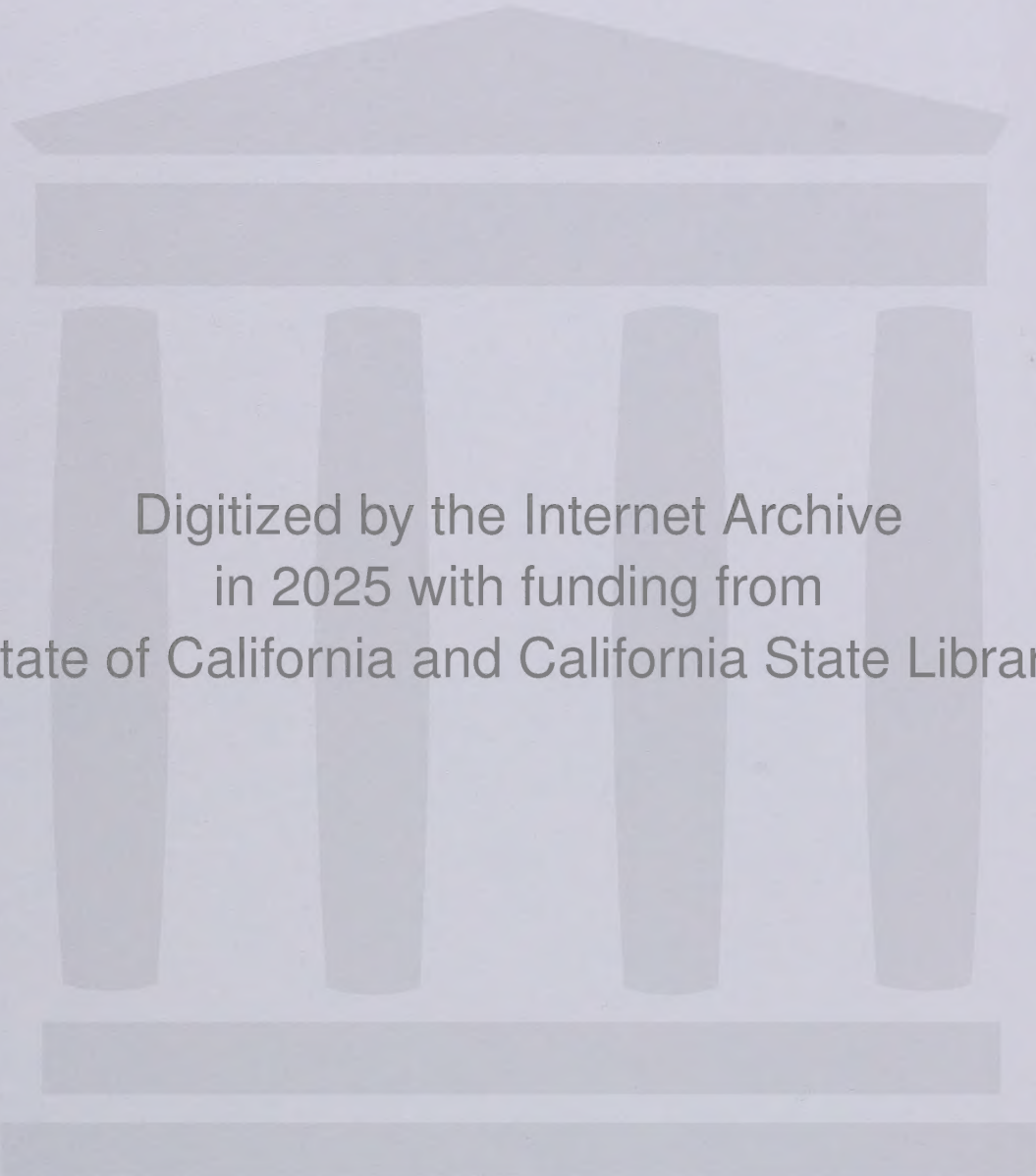
INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

APR 29 1992

UNIVERSITY OF CALIFORNIA

Draft Plan
September 1991

Marin County Planning Department
Civic Center
San Rafael, California



Digitized by the Internet Archive
in 2025 with funding from
State of California and California State Library

<https://archive.org/details/C124902403>

ACKNOWLEDGEMENTS

Board of Supervisors

Bob Roumiguere, 1st District
Harold C. Brown, 2nd District
Al Aramburu, 3rd District

Gary Giacomini, 4th District
Brady Bevis, 5th District

Planning Commission

Ron Marinoff, 1st District
Barbara Fuchs, 2nd District
Arlene Evans, 3rd District
Jerry Friedman, 4th District

Kim Blackseth, 5th District
Barbara Garfien, (At Large)
Jan Alff Weigel, (At Large)

County Staff

Mark J. Riesenfeld, Planning Director
Carol Williams, Chief of Policy and Program Planning

Fred Vogler, Principal Planner
Kim Hansen, Principal Planner
Denise Pinkston, Principal Planner
Warner Chabot, Principal Planner
Charles Stump, Principal Planner
John Eells, Transportation Coordinator
Art Brooks, Transportation Engineer
Chris Fitzgerald, Senior Planner

Thomas Giudice, Planner
Jane Ostermann Watts, Planner
Michael Richardson, Planner
Therese Brekke, Planner
Dick Shaler, Chief of Mapping
Larry Smith, Graphics Designer
Nancy Brooks, Secretary

Consultants

Jeffery C. Baird
EDAW
Robert L. Harrison
Illingworth and Rodkin

Alice Estill Miller
Moore, Iacofano and Goltsman
Lisa Newman

MARIN COUNTYWIDE PLAN

TABLE OF CONTENTS

INTRODUCTION	Intro-5
GOALS	Intro-19
EXECUTIVE SUMMARIES	Intro-23

ENVIRONMENTAL QUALITY ELEMENT	EQ-1
COMMUNITY DEVELOPMENT ELEMENT	CD-1
TRANSPORTATION ELEMENT	T-1
HOUSING ELEMENT (Adopted July, 1991)	1
NOISE ELEMENT	N-1
ENVIRONMENTAL HAZARDS ELEMENT	EH-1
AGRICULTURE ELEMENT	A-1
COMMUNITY FACILITIES ELEMENT	CF-1
PARKS AND RECREATION ELEMENT	PR-1
TRAILS ELEMENT	T-1

Note: A detailed table of contents is provided in each of the elements

MARIN COUNTYWIDE PLAN

INTRODUCTION, GOALS, AND EXECUTIVE SUMMARIES

INTRODUCTION

The 1991 update of the Marin Countywide Plan has been developed within a long tradition of environmental planning and coordination between the County and the cities and towns of Marin. The first Countywide Plan was adopted in 1973 and updated in 1982. The present update builds on the foundation of the 1973 and 1982 plans and uses current data to project trends and chart a course for Marin's future.

I. LEGAL AUTHORITY

A. STATE LAW REQUIREMENTS

Sections 65300 through 65403 of the California Government Code state that all cities and counties must prepare and adopt a comprehensive, long range general plan for the physical development of the jurisdiction. In addition, an attorney general's opinion describes the general plan as a constitution for future development. According to court decisions interpreting state legislation, the general plan is at the top of the hierarchy of local government law regulating land use, and zoning laws are subordinate to the general plan.

B. MANDATED AND OPTIONAL ELEMENTS

The Government Code specifies that the general plan must include seven mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. In addition, a local jurisdiction may adopt any other elements which relate to the physical development of the jurisdiction.

The present draft Marin Countywide Plan includes the seven mandatory elements as well as four additional ones: community facilities, agriculture, parks and recreation, and trails. The organization of the draft Countywide Plan and its relationship with State-mandated and optional elements is shown below:

Marin Countywide Plan Elements	State-Mandated Elements
Environmental Quality	Conservation; Open Space
Community Development	Land Use
Transportation	Circulation
Housing	Housing
Noise	Noise
Environmental Hazards	Safety
Agriculture	Optional
Community Facilities	Optional
Parks and Recreation	Optional
Trails	Optional

The 1982 Countywide Plan included two optional elements which are not included in the present update: the Plans for Planning Areas Element and the Energy Element. Information and policies which were in the Plans for Planning Areas Element of the 1982 Plan are included in the Community Development and Community Facilities Elements of the present plan. Policies from the Energy Element have been incorporated into the Community Development, Transportation, Housing, and Community Facilities Elements of the current plan.

C. INTERNAL CONSISTENCY OF PLAN

State law requires that all parts of the general plan comprise an integrated, internally consistent and compatible statement of policies. This standard, as well as court cases which have interpreted it, imply that all elements of the general plan have equal legal status; that all goals, objectives, and policies must be internally consistent; and that implementation measures must follow logically from the plan's goals and policies. To document the internal consistency of the Marin Countywide Plan, each element begins with a series of statements on the legal authority, relationship to other elements, relationship to other general plan documents, and organization of the element.

D. LIMITATION

Nothing contained herein shall be interpreted or applied in a manner which results in the denial of all reasonable private property.

II. HOW TO USE THE PLAN

A. ORGANIZATION

The introductory sections of the Countywide Plan provide an overview of the planning process and plan content. The Introduction to the Draft Countywide Plan explains the Plan's legal authority and provides an outline of the plan's organization, a section on the planning background, and a summary of public review process. The second section of the Plan is an executive summary outlining the main components of each element and serving as an overview of the entire document. The Executive Summary presents the elements in the order in which they appear in the Plan. The third section is a statement of goals for the entire plan.

All the elements follow a generally consistent format, including: an introduction describing legal authority, relationship with other general plan elements, and relationship with other general plan documents; a section describing policy history and previous accomplishments; a section describing existing conditions; and a series of objectives, policies and implementation measures.

B. DEFINITIONS

The following concepts are used regularly throughout the Countywide Plan:

Goal. A goal is a general expression of community values and is abstract in nature. It is not quantifiable or time-dependent. The Countywide Plan has four goals that express the community's desires concerning: 1) the natural and built environment; 2) coordination of land use and transportation planning; 3) job and housing development; and, 4) conservation of natural resources.

Objective. An objective is a statement of a desired achievement which is to be carried out through the policies and corresponding programs.

Policy. A policy is a specific statement to guide decision-making. It indicates a commitment to action. The strength of commitment is expressed through the use of the words "shall" or "should". "Shall" indicates a strong commitment to action and an unequivocal directive. "Should" expresses a less rigid directive. The use of the word "should" may indicate a need to balance the policy with other complementary or countervailing policies or may indicate a situation which requires cooperative action on the part of several governmental or private agencies where the County is not fully in control of the outcome.

Program. A program is a specific action, procedure, or technique used to carry out a general plan policy. In the Countywide Plan programs directly follow the policies which they implement.

Diagram. State planning law specifies that the general plan shall include diagrams which describe the objectives, principles, standards, and plan proposals. Diagrams can be described as graphic expressions of the plan's development policies. The general plan diagrams or maps are not as specific as zoning maps but they are detailed enough to provide guidance to users of the plan about the appropriate use of a parcel of land within the County's jurisdiction.

III. BACKGROUND

A. 1973 COUNTYWIDE PLAN

The Countywide Plan, first adopted in 1973, established three important principles which have continued to guide planning in Marin and are embodied in the 1991 draft Countywide Plan:

- 1) The Plan established three environmental corridors based on natural features and land uses appropriate for each corridor. The three corridors are:

The City-Centered Corridor along Highway 101, which is designated for urban development;

The Inland Rural Corridor, in the central and northwestern part of the county, which is designated for agriculture and other compatible land uses; and

The Coastal Recreation Corridor, which is reserved for Federal parklands and other recreational land uses as well as preservation of existing small coastal communities.

- 2) The Plan established a balance among three major needs: the need to protect the environment; the need to allow land uses which provided housing, jobs, shopping and recreation for present and future residents; and the need to develop transportation options which reduce dependence on the automobile.
- 3) The Plan was developed through a countywide planning process with participation from representatives of city and county government. It established a policy framework for land use in the cities and provided specific direction in unincorporated areas.

In developing the 1973 Countywide Plan, planners estimated how much development would have been allowed under the existing city and county land use plans. They found that the county population could have grown to 800,000 if land had been developed to its ultimate buildout under those plans. Under the land use policies of the Countywide Plan, development potential was reduced to project a population of 300,000 and 89,500 jobs by 1990.

B. PLAN UPDATE IN 1982

The 1982 update of the Countywide Plan retained the basic premises of the 1973 plan; with the three environmental corridors and the balance among the three major needs recognized in the 1973 plan (environmental protection; land designated to provide housing, jobs, shopping and recreation; and decreasing dependence on the automobile). Based on current data, projections were reduced from 1973. The new projections for 1990 were a population of 252,000 and 76,000 jobs.

One of the new features of the 1982 plan was the establishment of the concept of urban service areas. Areas surrounding cities were identified as suitable for annexation because cities and special districts were prepared to provide basic urban services: water, sewers, and police and fire protection. These areas were mapped and designated as places where urban development should occur.

Urban service area issues were reviewed and discussed by city councils, and the entire plan was developed in cooperation with an advisory committee composed of a member of the County Board of Supervisors and a member of each city council.

The 1982 plan recognized that the cost of providing the transit service described in the 1973 plan was prohibitively high and recommended a more modest increase in local transit service. The plan also called for significant increases in carpooling and transit use both for local and transbay commuting to reduce projected levels of congestion from single-occupant vehicles to an acceptable level.

Another component of the 1982 plan was an energy element which established a goal of a 50% decrease in the use of nonrenewable energy by the year 2000. This element presented an ambitious set of policies aimed at increasing use of solar and wind energy, retrofitting and insulating existing buildings to reduce energy use, and reducing dependence on fossil fuels.

C. STATUS REPORT ON IMPLEMENTATION OF 1982 COUNTYWIDE PLAN

At the end of 1985, County planning staff prepared a status report to evaluate achievement in implementing the 1982 plan. The report focused on three elements of the plan: environmental quality, community development, and transportation.

1. Environmental Quality

The report indicated considerable success in carrying out major policies of the Environmental Quality Element on open space preservation, bayfront conservation, and stream conservation. The report noted that open space lands of countywide significance were designated in the Element and priorities for purchase were established by the County Open Space District, which implements the open space policies. Considerable success was achieved in acquiring open space lands. Sixty percent of the ridgeland in the City-Centered Corridor identified as community separators and targeted as priorities for acquisition were acquired.

Another significant accomplishment was the implementation of Bayfront Conservation Zone policies through the establishment of a bayfront conservation zoning overlay district on parcels of land within this zone. All of the county lands within the Bayfront Conservation Zone were rezoned with the overlay except for the St. Vincent's-Silveira lands north of San Rafael and the lands around the county airport north of Novato (these rezonings were deferred pending completion of special studies in these areas and are included as part of the implementation program of the present draft Countywide Plan).

A third important achievement was the designation of Stream Conservation Areas and policies which are used as guidelines in crafting conditions of approval for development proposals in the unincorporated areas of the county. The policies define different kinds of streams; establish setbacks from stream banks as conservation areas; establish permitted and prohibited uses in these areas; and deal with preservation of vegetation, protection of fish and wildlife, erosion control, aesthetics, public access, management, and flood control (all the Stream Conservation Area policies in the 1982 Countywide Plan have been included in the current draft).

2. Community Development

The status report reviewed demographic trends and projections and noted that data available in the mid-1980s indicated significant differences from those projected in the 1982 plan. These changes included smaller households, lower total population, more local jobs, and more working adults in each household. Subsequent data from the 1990 census confirmed these trends.

The 1982 plan, which was completed before 1980 census data became available, projected that the 1980 population would be 230,000. The 1980 census population count for Marin was only 222,600 and the population recorded in the 1990 census was 230,096, about the same as the population which had been projected for 1980 in the 1982 plan.

The projected number of housing units also declined during the 1970s. The 1973 plan projected 106,100 housing units by 1990, while the 1982 update reduced the 1990 projection to 102,394. The 1980 and 1990 census counts for housing units were 92,650 and 99,700, respectively.

The status report indicated that the 1980 census showed 2.43 persons per household instead of the 2.55 persons per household projected in the 1982 Countywide Plan and that a decrease in household size to 2.17 persons per household was projected by the year 2000.

In contrast to the trend toward lower population and housing growth was an increase in job growth over the projections in the 1973 and 1982 plans, as indicated in the 1985 status report, the Association of Bay Area Governments' (ABAG) Projections 1990, and information from the County Planning Department's land data bases. The 1973 Countywide Plan projected that there would be 89,500 jobs in the county by 1990. The 1982 plan projection was reduced to 76,000 jobs by 1990. The actual number of jobs in the county in 1990 was 103,900.

Job growth was mirrored by the increase in the number of employed residents: from 118,500 in 1980 to 132,600 in 1990. ABAG anticipates that there will be 148,600 employed residents in Marin County by the year 2000. The number of workers per household is increasing as household size declines. There were 1.19 employed residents per household in 1970, 1.34 in 1980, and 1.38 in 1990. The number of employed residents per household is expected to remain at 1.38 through the year 2000.

3. Transportation

The status report noted that the growth in local jobs caused a change in traffic patterns which was not anticipated in the 1982 Countywide Plan. The information used to develop the plan indicated that the number of employed Marin residents would exceed the number of jobs available in the county and that significant numbers of Marin residents would continue to commute to jobs in San Francisco. Commuting from Sonoma through Marin to jobs in San Francisco was also expected to continue.

Transportation policies were based upon these assumptions and upon the scarcity of funds for major transportation improvements. Policies emphasized the use of public transit and high occupancy vehicles (carpools and van pools) to reduce the use of single-occupant vehicles on Highway 101. Recommended improvements in the 101 Corridor included high occupancy vehicle (HOV) lanes on the highway and preservation of the Northwestern Pacific railroad right-of-way for future transit use.

Goals included: a 100% increase in carpools for local travel, a 50% increase in carpools for transbay commuting, a 33% increase in transit use for transbay commuting, and the funding of an expansion of local transit service through the passage of a 1/2 cent sales tax increase.

The 1985 status report indicated that the sales tax was not passed and that local transit service was not expanded, that completion of the HOV lane system was far behind schedule and that transit use and carpooling declined rather than increasing according to plan goals.

In addition, the growth in local jobs was changing the commuting pattern. The commute from homes in Marin and Sonoma to jobs in San Francisco declined by 5% between 1981 and 1985, while commuting from Sonoma to Marin nearly doubled between 1975 and 1985. Commuting within Marin also increased more than anticipated in the 1982 plan.

4. Conclusion

The status report concluded that plan projections, policies and implementation measures needed to be revised and that a closer linkage needed to be made between land use projected in the plan and transportation needed to serve the projected land use. Analysis of the 1982 Plan also indicated a need to show precise land use designations for unincorporated areas.

IV. 1991 COUNTYWIDE PLAN UPDATE

A. PUBLIC PARTICIPATION

The draft Countywide Plan is the result of an extensive public review process conducted primarily through the Countywide Plan Advisory Committee, a body composed of a representative from each city council and one member of the County Board of Supervisors. In 1989, the committee reviewed and commented on most of the draft elements of the Countywide Plan. This committee was formally constituted as the Countywide Planning Agency in October 1990 through a joint powers agreement approved by ten cities and the County. One of its duties is to review and comment on the Countywide Plan.

In March 1990 the County Planning Department published a report analyzing the effects of six possible alternatives for future land use in Marin. The purpose of the report was to focus discussion and try to achieve consensus on how to use the remaining undeveloped land in the City-Centered Corridor along Highway 101. At two workshops held in April 1990, participants expressed their preferences about possible

alternative futures for Marin County. The Countywide Planning Agency held a workshop in June 1990 at which Agency members expressed their preferences. From December 1990 to May 1991 the Countywide Planning Agency held hearings on land use alternatives for the Countywide Plan and invited individuals and organizations to express preferences and present proposals for using the remaining available land in eastern Marin. There was extensive public participation at these hearings after which Planning Agency members expressed their opinions and asked their city councils to make comments.

Out of this review process, some points of consensus emerged. Participants generally agreed that the concept of dividing the county into three environmental corridors for planning purposes was sound and should be retained. There was consensus that West Marin should remain predominantly agricultural and agreement that ridge and upland greenbelt community separators should be retained, and baylands and streamside areas protected. The need for affordable housing was recognized. Participants supported mixed use development with housing, jobs, and shopping areas located near each other in order to reduce the need for automobile trips.

There was extensive discussion about how remaining tracts of land, such as St. Vincent's-Silveira, Hamilton Field, and the lands north of Novato around Gness Field, should be used and about whether transit facilities should be expanded to reduce dependence on automobiles for transportation. There was also extensive discussion about how much future job development should be allowed and whether some of the land designated for commercial development in city general plans should be converted to housing.

The draft plan incorporates many of the ideas, concepts, and proposals presented at these meetings. Public review of the draft plan may result in further changes.

The next stage of public review will be at the County Planning Commission where public hearings will be held on the draft Countywide Plan and Environmental Impact Report in the fall of 1991. The Countywide Planning Agency will also review the draft Plan and will make comments to the Planning Commission. After holding hearings and possibly making changes in the draft Plan based on public testimony, the Planning Commission will recommend that the Board of Supervisors adopt the Countywide Plan and approve the Environmental Impact Report. Then the Board will hold hearings and adopt the Plan.

B. VISION EXPRESSED IN THE PLAN

The public review process has provided direction for the drafting of the Plan. To the extent that consensus was achieved and a vision for Marin's future expressed, this vision is included in the draft plan. Highlights of the draft Plan include the following:

- 1) The three environmental corridors which define land use are retained. The City-Centered Corridor is designated for urban development and critical resource preservation; the Inland Rural Corridor is designated for agriculture and other compatible land uses; and the Coastal Recreation Corridor is reserved for parklands and preservation of small coastal communities.
- 2) An Agriculture Element is included, which recommends limiting non-agricultural uses in agricultural zones and retaining agricultural production in the Bayfront Conservation Zone where feasible.
- 3) Policies encourage city-centered development, location of housing near jobs, and coordination of development with the transportation system.
- 4) Policy direction is provided to promote city-centered development and cooperation between the cities and the County for economic development.
- 5) New policies have been included, which expand the role of the Countywide Planning Agency to develop and implement coordinated growth management programs for the cities and the County.
- 6) The plan recognizes the land use designations and densities of city general plans in estimating development potential in cities. For unincorporated areas land use policies and maps are included, which clearly show designations and densities or building intensities. In most areas there is no change from current policy. However, in a few significant areas current policy is clarified or new policies are recommended:

St. Vincents-Silveira. In this early draft of the plan the portions of this site which are constrained by County policy, including the ridge and upland greenbelt and bayfront conservation designations, are identified. An area unconstrained by such environmental policies is also shown but no uses or densities are indicated.

The draft plan recognizes that the City of San Rafael is conducting a study of the site and recommends evaluating land use designations and densities established in that study. Before the plan is adopted, the County must designate land use and density for the site.

Bel Marin Keys. An agriculture and conservation designation is established for the 1600 acre undeveloped portion of Bel Marin Keys, which is currently used to farm oat hay. This designation recognizes that the site is situated in the Bayfront Conservation Zone and is subject to environmental constraints. The designation establishes a density range of one dwelling unit per two acres to one unit per ten acres. The maximum development potential allowed within this range would be consistent with current County zoning which would permit up to 800 dwelling units.

North Novato. In this area north of the Novato city boundary land within the Inland Rural Corridor is designated for agriculture at a density of 30 to 60 acres per dwelling unit. Sites on Black John Slough and the Petaluma River are designated for marinas. Land around the County airport at Gness Field is designated for use as an industrial park. Land situated in ridge and upland greenbelt areas is designated for residential development at densities from one dwelling unit per acre to one unit per ten acres. This designation is consistent with ridge and upland greenbelt designations in other parts of the county.

- 7) Transportation policies establish level of service D on Highway 101 as a goal and provide for the cities and the County to establish joint mitigation fee programs to pay for improvements needed to maintain level of service D on arterial streets and freeway interchanges. The Transportation Element establishes priorities for future transit service: first priority to completing the bus and carpool (HOV) lanes on Highway 101 and second priority to establishing rail transportation service on the Northwestern Pacific railroad right-of-way between Marin and Sonoma Counties, only if both counties participate. The Element calls for Marin County to provide a substantial increase in bus and ferry service if rail service is not provided.

COUNTYWIDE PLAN GOALS

The 1973 Countywide Plan included three goals which expressed community consensus about Marin's future. The goals were:

Discourage rapid or disruptive population growth, but encourage social and economic diversity within communities and in the County as a whole.

Achieve greater economic balance for Marin, by increasing the number of jobs and the supply of housing for people who hold them.

Achieve high quality in the natural and built environments, through a balanced system of transportation, land use, and open space.

These three goals were carried over to the 1982 Countywide Plan along with a fourth one which reflected the emphasis on energy conservation in the 1982 update. The energy conservation goal stated:

Achieve a sustainable energy future for Marin County by reducing total energy demand; and by replacing substantial dependence on nonrenewable, imported energy resources with greater reliance on local, renewable energy resources.

The following updated goals are proposed for the 1991 Countywide Plan. These goals restate some of the earlier goals in more direct language and express the desires expressed in the public participation process on the plan to date.

To conserve and enhance the high quality of the natural environment and strive for high quality in the built environment.

To coordinate transportation and land use planning and to provide effective public transit service which reduces dependence on automobiles.

To create housing opportunities for an economically and socially diverse population and provide job opportunities for Marin residents.

To achieve resource conservation by reducing dependence on nonrenewable, imported resources and by protecting local resources from untimely development and waste.

To manage growth by encouraging the coordination of development with adequate public services and by encouraging inter-jurisdictional planning to preserve and enhance agricultural, recreational, and open space resources.

EXECUTIVE SUMMARIES

I. ENVIRONMENTAL QUALITY ELEMENT - EXECUTIVE SUMMARY

The Environmental Quality Element presents a comprehensive package of policies and programs that protect Marin County's natural resources. These resources include land, water, and air, as well as aesthetics and wildlife habitat. The Environmental Quality Element describes the County's targets for open space preservation and sets forth policies for the preservation of mineral resources. This Element satisfies State requirements for conservation and open space elements of the Countywide Plan.

A. ENVIRONMENTAL CORRIDORS

For purposes of environmental planning, the county is divided into three north/south corridors. Each of the three environmental zones has a unique set of land use, development, and open space issues, all which are addressed in this element. The environmental corridors are designated as follows:

The City-Centered Corridor along Highway 101 and adjacent to the Bay is designated for concentrated urban development;

The Inland Rural Corridor in the central and northwestern county is designated for agriculture and compatible uses; and,

The Coastal Recreation Corridor, adjacent to the Pacific Ocean, is designated for Federal parklands, recreational uses, and the preservation of existing small coastal communities.

B. RESOURCE CONSERVATION AREAS

The following conservation areas have been identified for policies and programs:

1. Stream and Creekside Conservation Areas

Policies in this document establish buffer zones called Stream Conservation Areas (SCAs) for the protection of riparian systems, streams, and related habitats. SCAs exist along perennial and intermittent streams, as defined by solid and dashed blue lines on USGS quad maps.

A Stream Conservation Area consists of a watercourse, surrounding banks, and a strip of land extending laterally from the top of both banks. Uses allowable in the Stream Conservation Area include: necessary water supply and flood control projects, improvements to fish and wildlife habitat, grazing, agriculture, maintenance of channels for erosion control, water monitoring installations, and trails. Prohibited uses include, but are not limited to: roads and utility lines (except at crossings), confinement of livestock, dumping, use of motorized vehicles, and new structures.

2. Coastal Conservation Zone

The Coastal Conservation Zone extends from the Pacific shoreline of Marin County inland, 1,000 yards or more. The Coastal Zone boundary is coterminous with the Coastal Recreation Corridor boundary from approximately Olema north to the Sonoma County line. This element refers to policies and standards in the Local Coastal Plans I and II which have been approved by the California Coastal Commission and County of Marin Board of Supervisors. The Local Coastal Plans detail policies and standards for future land use, development, and activities within the conservation zone.

3. Bayfront Conservation Zone

The Bayfront Conservation Zone includes tidal marshes, seasonal marshes, lagoons, natural wetlands, and low-lying grasslands overlying historic marshlands. Three subzones exist within the Bayfront Conservation Zone: 1) the *Tidelands Subzone*, areas subject to tidal action; 2) the *Diked Bay Marshlands and Agricultural Subzone*, former marshlands which have been diked and often filled for agricultural and urban uses; and 3) the *Shoreline Subzone*, steep shoreline areas between roadways and Tidelands Subzones.

The County has adopted a zoning overlay district in unincorporated bayfront areas, requiring environmental assessment of existing conditions within the Bayfront Conservation Zone prior to preparation of master plans and development plans. Filling and dredging is prohibited within the zone. Policies in this Plan encourage projects that enhance wildlife and aquatic habitat and provide public benefit in the form of agriculture, wastewater reclamation, restoration of lands to tidal status, and flood basin.

In the Diked Bay Subzone, allowable uses are limited to: public access; recreation; education or scientific opportunities; housing; essential water, transportation or utility services; and protection from natural hazards. Uses must also conform to applicable Federal and State regulations. Restoration of bay marshlands offers significant potential for habitat value and will be encouraged whenever possible.

Policies in this document preserve the dramatic viewsheds and coastal habitats in the Shoreline Subzone.

4. Air Quality

Air quality policies follow Federal and State air quality guidelines for carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and total suspended particulates for management of locally generated pollutants.

Although the ambient air quality in Marin is high, the County recognizes that Marin benefits from its upwind location relative to prevailing wind conditions in the Bay Area. The County should seek to reduce pollution generated by land uses and transportation. Within the county, air pollution affects "sensitive receptors" like hospitals and schools. Air quality concerns shall be considered when locating "sensitive receptors" or adjacent land uses.

5. Mineral Resources

The State Mining and Reclamation Act of 1975 requires that the County adopt policies to protect certain State-designated mineral resource sites from land uses which would preclude or inhibit mineral extraction needed for satisfying market demand on a timely basis. The purpose of the Act is to ensure that construction materials will be available to all areas of the State at a reasonable cost.

Seven mineral resource sites were identified in Marin County, four of which are located in unincorporated areas and subject to County policies. The State has designated one of the resource sites, Ring Mountain, as a scientific resource zone and 300 acres have been preserved as open space.

C. THE BUILT ENVIRONMENT

The built environment policies address aesthetic and environmental issues including, but not limited to: preservation of ridges and upland greenbelts, creekside development, design standards in planned district categories, and guidelines for the design of activity centers, and protection and enhancement of view corridors.

Several of these policies have been implemented through zoning and subdivision laws. Review procedures ensure that proposed developments comply with the County's conservation policies.

D. OPEN SPACE PROGRAM

The County's Open Space program targets land in each of the three environmental corridors to be reserved as permanent public open space for recreational or environmental protection purposes. Targets have actually been exceeded in the Inland Rural and Coastal Recreation Corridors, due to Federal and State parkland purchases and recreational use of lands acquired for watershed. However, only 56% of targeted lands in the City-Centered Corridor have been acquired, including all lands owned by public and quasi-public agencies.

The Open Space Program identifies a number of techniques for achieving the desired targets, such as transfer of development rights; zoning regulation (e.g. low density zoning); and, gift, dedication, or purchase of lands by the Open Space District or other public entity.

E. SPECIES PROTECTION

The lands in Marin provide habitat for a rich variety of plants and animals. However, several species of plants and animals and some natural communities in Marin County are becoming increasingly rare, due to changes in the landscape caused by human activities. Through the development review process, the County seeks to protect the natural habitat from detrimental human activity.

II. COMMUNITY DEVELOPMENT ELEMENT - EXECUTIVE SUMMARY

The Community Development Element provides direction for land use in Marin County, general direction countywide for location and types of development, and specific designations for land in unincorporated areas under County jurisdiction. This part of the Countywide Plan links community development, natural environment and health and safety concerns into the land use policies and designations of the plan. The Element addresses Countywide issues as well as specific planning area issues. The following graphic illustrates this policy framework:

Community Development Element Policy Framework

Countywide Character and Development Pattern: Defines overall development goals for the County and strategies for the location of development, environmental corridors, land use and economic development, and energy conservation.

Countywide Planning Framework and Growth Management: Provides a framework for coordinated planning among all jurisdictions and establishing land use types (open space, residential, commercial, etc.) and standards for the density and intensity of development for unincorporated areas.

Plans for the Seven Planning Areas: Provides detailed objectives and policies for West Marin and the six planning areas located within the eastern urban corridor of the County (with West Marin and the unincorporated portions of each planning area as the focus of greatest detail).

Key Issues which the Community Development Element addresses include the following:

Choices about how to use the remaining land in the City-Centered Corridor.

Maintaining a balance between jobs, housing, retail development, and open space.

The timing and funding of infrastructure to serve projected development.

Primary recommendations include:

Retaining the environmental corridors designated in the 1973 and 1982 Countywide Plans;

Calling for balanced communities which provide a mix of housing, jobs, shopping, recreation, and educational facilities;

Providing a framework for cooperative inter-jurisdictional planning and coordination and for countywide growth management;

Establishing land use designations for land in unincorporated areas.

The Element includes policies advocating the location of jobs and housing in close proximity to each other and coordination of residential and commercial development with the transportation network and transit system. Policies encourage a coordinated countywide approach to economic development which provides diverse local employment opportunities, reduces the need for commuting, and allows live/work space and cottage industries. A group of policies advocate energy conservation, increasing energy efficiency in new and existing structures, use of renewable energy sources, and water conservation.

Countywide planning and growth management policies designate planning areas and activity centers, specify the relationship of the Countywide Plan with community plans, city general plans, special district plans, and the plans of neighboring counties. Growth management policies are focused around coordination of activities to manage growth so that transportation, water, and sewer facilities are adequate to serve projected housing and job development. Coordinated planning is accomplished through review by the Countywide Planning Agency of each jurisdiction's general plan standards for transportation, housing, environmental quality, and community facilities.

Land use categories, densities, and intensities are established for land in the unincorporated area of the county. Categories include: single-family residential, multi-family residential, commercial, public, and agricultural. Land use and demographic data are summarized for seven planning areas, including both cities and unincorporated areas. The seven planning areas are: Novato, Las Gallinas Valley, San Rafael Basin, Upper Ross Valley, Lower Ross Valley, Richardson Bay, and West Marin. Land use policy maps provide specific designations for lands under County jurisdiction.

III. TRANSPORTATION ELEMENT - EXECUTIVE SUMMARY

The purpose of the transportation element is to describe existing and projected conditions of the transportation system and County policy concerning transportation. The element begins with a discussion of current transportation system performance and the trends that led to current conditions, including policy and program activities undertaken by local government (unless otherwise noted, 1987 is the base year for the discussion of current conditions). The element includes a projection of how the system would perform with the land use projections contained in the Community Development element. In order to accommodate the travel demand associated with the land use projections, the element specifies the improvements needed for achieving an acceptable level of service and how those improvements would be provided. The Element also includes objectives, policies, and programs which facilitate the planning and public review process for the transportation system.

The existing transportation system is able to meet the demands placed upon it, except during the morning and evening peak commute hours. During those times Highway 101 at Puerto Suello Hill and several arterials experience unacceptable congestion (Level of Service F). Transbay transit ridership to San Francisco declined between 1980 and 1989. Carpooling to San Francisco also declined. Local transit ridership within Marin increased slightly during the same period.

Projections of travel demand associated with the land use projections show that portions of Highway 101 and selected arterials would suffer severe congestion (Level of Service F) unless there are increases in transportation system capacity.

In order to meet the desired standard, Level of Service D, the transportation system needs an increase in capacity. Recommended improvements include completing the High Occupancy Vehicle lanes from the Richardson Bay bridge to the Sonoma County line, creating light rail transit service between Larkspur Ferry Terminal and Santa Rosa, increasing ferry service to San Francisco, building auxiliary lanes between selected freeway interchanges, building McInnis Drive between the Civic Center and Rowland Boulevard on the east side of Highway 101, and improving selected local streets.

The recommended improvements may be funded by a combination of State and Federal transportation funds, Golden Gate Bridge District revenues, local sales taxes, and traffic mitigation fees from local developers.

Public policy emphasizes setting and maintaining level of service standards, providing the necessary improvements to meet the level of service standards, and linking land use and transportation system decisions to achieve and maintain level of service standards.

IV. HOUSING ELEMENT - EXECUTIVE SUMMARY

The primary focus of the revised Housing Element is to identify current and projected housing needs within unincorporated areas in Marin, and to set forth specific implementation programs necessary to address these needs. The Marin County revised Housing Element is guided by the the following State housing objectives:

Provision of decent housing for all persons regardless of age, race, sex, marital status, source of income, or other arbitrary factors;

Provision of adequate housing by location, type, price, and tenure; and,

Development of a balanced residential environment including access to jobs, community facilities, and road services.

The County of Marin has prepared its revised Housing Element to meet State objectives and the other requirements of State law. In addition, the revised Element updates the Element adopted in 1984 by incorporating new information and community concerns which relate to housing in Marin.

Both population and the number of housing units in Marin grew rapidly between 1960 and 1970. In the 1970s and 1980s, population and housing growth slowed, while job growth accelerated. Other significant trends between 1960 and 1991 include the following: 1) the dramatic rise in the cost of housing; 2) a rise in the median age of the local population; and 3) decrease in family size.

A continuation of recent trends in Marin is projected for population, housing, and employment. Both the population and number of housing units are expected to continue increasing to the year 1995, although at a slower pace than job creation. As the population will continues to age, household size will drop even further. It is anticipated that housing prices will continue to climb.

This element encourages affordable housing development as a means of meeting County's share of the growth in regional housing demand, enhancing social and economic diversity within Marin, and equalizing the jobs/housing imbalance which has created congestion on Highway 101. The Element suggests that smaller household size should be accommodated by encouraging shared housing programs and the construction of smaller housing units.

V. NOISE ELEMENT - EXECUTIVE SUMMARY

State law requires that a noise element be prepared as part of all city and county general plans. Noise elements are required to identify noise problems in the community and work toward their resolution. The Marin County Noise Element has been prepared to meet the requirements of State law.

The first Countywide Plan Noise Element was adopted in 1975. It addressed noise generated by automobile traffic on highways. The updated Noise Element incorporates new information and concerns related to community noise exposure levels in the county. The purpose of the Element is to identify current and projected future noise levels from major sources, including Highway 101, the heliport adjacent to Richardson Bay, and the County airport at Gnos Field (north of Novato). Based on the levels of noise from these sources and from construction activity and other sources, the Element identifies programs to help mitigate significant noise problems in the community.

The Element includes objectives, policies, and implementation programs which fall in one of two categories: (1) locating and designing new development to minimize exposure of residents and workers to excessive noise levels, and (2) maintaining acceptable noise levels in existing developed areas. Policies in the first category include guidelines for noise levels for residential, commercial, and industrial development. These guidelines establish the following threshold outdoor noise levels at which an accoustical analysis must be performed: 60 decibels (dbA) LDN for residential developments, 65 dbA LDN for office and commercial developments, and 70 dbA LDN for industrial developments. Policies in the second category include standards for maintaining acceptable noise levels in areas with existing residential, commercial, industrial, and institutional uses. New developments will be analyzed for their impacts on these existing uses.

VI. ENVIRONMENTAL HAZARDS ELEMENT- EXECUTIVE SUMMARY

The policies and programs in the Environmental Hazards Element reflect recent legislation and research on *geologic*, *seismic*, *flood* and *fire* hazards.

Marin County is at risk for a number of geologic hazards, including but not limited to landslides, debris flow, liquefaction, and differential settlement. These geologic hazards can be aggravated by seismic activity. The San Andreas Fault runs through West Marin and is the only known active fault in the county. Seismic activity on the San Andreas Fault poses a significant threat to lives and property since an earthquake could trigger landslides and other geologic events, flooding, and fire.

Flood hazards can originate from watercourses, reservoirs, bay waters, and coastal waters. Streams and creeks regularly swell with storm water runoff and inundate developed areas; dams located near the San Andreas Fault could rupture after an earthquake and cause flash flooding; high tides and storm swells can cause bay and coastal waters to rise and flood shoreline areas.

Fire hazards fall into two general categories: wildland fires, which emanate from open chaparral and grassland or forest areas and can threaten adjacent communities; and structural fires, which damage homes and workplaces and may spread to other areas.

Geologic hazards, fire, and flooding are a major concern. The risk of damage from these environmental hazards can be reduced through mitigation measures such as zoning, project review, public information, and coordination with other agencies.

The objectives, policies and implementation programs contained in this Element are intended to reduce the risk of death, injuries, damage to property, and economic and social dislocation resulting from flood, fire, seismic, and geologic hazards.

VII. AGRICULTURE ELEMENT - EXECUTIVE SUMMARY

The Agricultural Element is an optional element. This element was prepared with the intention of stressing the County's dedication to the preservation of agriculture through clearly identifying County agricultural policies. The primary objectives of the Agriculture Element are preserving agricultural lands and preventing subdivision of lands under agricultural production. Agricultural preservation policies also appear in the Local Coastal Programs I and II, which are part of the general plan and address issues in the county's Coastal Zone. The policies and programs of this element clarify and strengthen both intent and implementation of the 1982 Marin Countywide Plan, the Local Coastal Plans I and II, and the various community plans. The County's agricultural policies recognize the value of continued agriculture for regional food and fiber and also as an industry for the diversified county economy.

The policies in this element protect and preserve agricultural lands through making use of: 1) extremely low density zoning in the Inland Rural and Coastal Corridors; 2) transferred development rights from agricultural areas to areas more suitable for development; 3) agricultural easements which preserve land for continued agricultural uses; 4) cluster development and master plan development standards; and 5) the Williamson Act.

Much of the land in Marin County is zoned for agriculture and lies within the Inland Rural and Coastal Recreation Corridors. About 90% of the agricultural land in the county is in an agricultural zoning category with a minimum lot size of one unit per sixty acres. This element recommends that the County apply a more uniform agricultural zone to all agricultural lands in the County. Considerations for this primary agricultural zone include a determination of development standards; the effect of non-agricultural uses in agricultural districts; the effect of non-agricultural operations on soils and plants; and traffic impacts.

Transfer of development rights (TDRs) permit non-agricultural development rights to be transferred to designated areas where development would have fewer environment impacts. The Williamson Act also plays a vital role in preserving agricultural activities in Marin. In Williamson Act contracts, property owners agree to restrict their land to agricultural uses for a period of ten years in exchange for a reduced county tax assessment. Policies in this element recommend that Williamson Act contracts contain a clause which prevents or discourages subdivision of contract parcels.

The policies of the Local Agency Formation Commission (LAFCo) prevent annexation of lands currently engaged in production or identified as agricultural by either zoning, Williamson Act contract or general plan designation. According to LAFCo policy, vacant or non-prime agricultural lands located within the sphere of influence of a city or special district should be developed before agricultural lands outside of the jurisdiction are annexed.

The Marin Agricultural Land Trust (MALT) is a private, non-profit local organization established to preserve and protect Marin's agricultural lands. MALT's primary method of preservation involves the acquisition of agricultural conservation easements, where the landowner places permanent restrictions on future uses of his or her property in order to protect its agricultural character and productivity.

When residential uses encroach on land historically used for agriculture, farmers find it increasingly difficult to continue operations, due to opposition from neighbors. A right-to-farm ordinance would help to preserve existing agricultural operations by protecting farmers from nuisance complaints by residential neighbors.

VIII. COMMUNITY FACILITIES ELEMENT - EXECUTIVE SUMMARY

The Community Facilities Element presents information about County provision of four major community services and facilities: *police, fire, water, and sewer*. Other community facilities and services are discussed, including schools, childcare, waste management, and telecommunications.

This element describes and maps the sphere of influence of each of Marin's eleven cities. Sphere of influence and urban service area designations are important because they effect the provision of services. The sphere of influence designates the probable ultimate boundary and service area of a local government agency. An urban service area delineates where urban development patterns can best be accommodated within the sphere of influence during the next five to ten years. Eight of Marin's eleven cities are considering minor changes to their sphere of influence boundaries.

Two water districts serve the City-Centered Corridor, the Marin Municipal Water District (MMWD) and the North Marin Water District (NMWD). An analysis of water resources indicates that the MMWD will need to find additional sources of water to serve additional growth. The District has prepared the Water Supply Master Plan (October, 1989) which estimates future demand and identifies potential water sources. MMWD instituted a moratorium on new water hookups in March 1989.

The NMWD estimates need for an additional 6,500 acre-feet of water by the year 2010. Negotiations are underway with Sonoma County to obtain this water. Although the district has a sufficient water supply to serve the existing and projected population, capacity can be restricted in peak demand periods. The District will need to construct improvements and continue its conservation programs.

In West Marin, the Bolinas Public Utility District (BPUD) continues to enforce a long-term moratorium because of water capacity limitations. The District plans to improve its system in order to alleviate the supply and demand imbalance. While other West Marin water service agencies appear to have sufficient water supply to serve existing and projected population, capacity may be restricted in peak demand periods.

Although many sewer systems have been upgraded in recent years, problems of infiltration exist in some of the older systems. Some districts will need to undergo major plant expansion projects in order to accommodate development potential. In particular, the Las Gallinas Sanitary District and the Novato Sanitation District will need to expand in order to serve the large parcels anticipated for development within the next ten years.

Fire protection services are generally adequate. However, narrow winding roads limit access in some areas. Many fire districts require installation of sprinkler systems in areas with a high risk for fire hazard. Other community services, such as police protection and school facilities, are adequate and can be expanded as the population grows.

In order to maximize the efficiency of existing facilities, the objectives, policies, and implementation programs of this element encourage growth in areas where services and facilities are available.

IX. PARKS AND RECREATION ELEMENT - EXECUTIVE SUMMARY

Although State law does not require inclusion of a Parks and Recreation Element in the General Plan, a parks and recreation element serves two important functions: 1) establishing priorities in a time of scarce resources; and, 2) helping the County increase its inventory of park land through satisfying the requirements of two State laws, the Quimby Act and the Naylor Act. The Quimby Act allows local jurisdictions to require dedication of land for parks and/or payment of an in-lieu fee, as a condition of approval of development projects. The Naylor Act allows cities and counties to acquire surplus school properties for recreation purposes. The County must establish criteria for invoking these laws in the Parks and Recreation Element.

The County's last Parks and Recreation Element was adopted in 1965, at a time when the most pressing need was for more regional parks. Since 1965, this need has been substantially met through Federal acquisition of the Golden Gate National Recreation Area and the Point Reyes National Seashore, and the Marin County Open Space District's acquisition of more than 12,000 acres of open space land.

In 1989, a survey of recreation directors ascertained a need for additional community facilities for active recreation (e.g. bike trails, swimming pools, tennis courts, and picnic and overnight camping areas) and improvement to existing facilities. The survey also identified a need to clarify the roles and responsibilities of the various providers of recreation - cities, county, and special districts.

The Element identifies an important role for the County in three areas: (1) coordinating with the cities on recreation policy issues, on the provision of a centralized facilities inventory and needs assessment, and on developing Quimby and Naylor Act criteria; (2) providing regional park facilities to meet countywide needs; and (3) developing options for funding the acquisition and operation of parks and recreation facilities.

The policies of the Parks and Recreation Element specify the following responsibilities for the County: managing existing county parks and developing new ones; coordinating with other park providers to avoid duplicating facilities and services; providing recreation services only in areas not served by cities and special districts; and, serving as a resource and facilitator for all park and recreation providers in the county.

X. TRAILS ELEMENT - EXECUTIVE SUMMARY

The principal purpose of the Trails Element is to identify trails of city or countywide significance to be preserved and made available for public use, and to establish policies for developing and maintaining trails once they are acquired for public use. The Element will be used for planning and securing the trails system shown on the accompanying 23 Trails Element Map series.

Historically, a network of trails has been available to the residents of Marin County. The trails provide a variety of outdoor recreational and educational experiences. All of the County's publicly owned trails and fire roads are open to the public free-of-charge, every day during daylight hours, except in extreme weather conditions. One goal of the Trails Element is to ensure that the trails remain open. Another goal of the Trails Element is to resolve problems resulting from conflicting uses. The Element strives to preserve the existing variety and quality of outdoor experiences for the enjoyment of future generations.

The Trails Element Map Series illustrates a system of trails which link local residential communities with open space lands, water district lands, and State and Federal parks. Some of these trails have been preserved through purchase and/or agreement with individual owners. Where proposed trails are shown on private property, the use of these trails is subject to the owners' permission.

This element discusses types of trails and uses for trail types; trail system planning, design, and maintenance; and techniques for acquiring easements and lands for trails.

A number of Trails Element policies address the administrative tasks necessary to plan, coordinate, and implement a trails system. The Element sets forth policies and use designations for trails on Marin County Open Space District lands. The accompanying Maps Series indicates proposed trail alignments on private property. In an effort to coordinate trails planning and management between jurisdictions, this element addresses trails on Marin Municipal Water District (MMWD), State, and Federal lands. However, this element does not supersede policies on MMWD lands and State and Federal lands.

Recommended programs in the Element include: assignment of trails administration to the Open Space District, developing specific trails design criteria, designation of uses for trail types, and an annual evaluation of progress with the Trails Committee of the Parks, Open Space and Cultural Commission.

**ENVIRONMENTAL QUALITY
ELEMENT**

ENVIRONMENTAL QUALITY ELEMENT

TABLE OF CONTENTS

I. INTRODUCTION.....	1
A. LEGAL AUTHORITY	1
B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS.....	2
C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS.....	2
D. ORGANIZATION OF THE ELEMENT	3
II. EXISTING CONDITIONS	3
A. ENVIRONMENTAL CORRIDORS.....	3
1. City-Centered Corridor.....	3
2. Inland Rural Corridor.....	4
3. Coastal Recreation Corridor	4
B. RESOURCE CONSERVATION AREAS.....	4
1. Stream and Creekside Conservation Zones	6
2. Coastal Conservation Zone.....	6
3. Bayfront Conservation Zone	6
4. Air Quality Resources	10
5. Mineral Resources.....	13
6. Timber Production	15
C. THE BUILT ENVIRONMENT	15
D. OPEN SPACE	16
E. SPECIES PROTECTION.....	20
III. OBJECTIVES, POLICIES AND IMPLEMENTATION PROGRAMS	22
A. ENVIRONMENTAL CORRIDORS.....	22
B. RESOURCE CONSERVATION AREAS.....	22
1. Stream and Creekside Conservation Areas	23
2. Coastal Conservation Areas.....	32
3. Bayfront Conservation Areas	32
4. Air Quality Resources	41
5. Mineral Resources.....	44
C. THE BUILT ENVIRONMENT	46
1. General Policies	46
2. Design Criteria.....	48
D. OPEN SPACE AND RECREATION	57
1. General Policies	57
2. City-Centered Corridor Program.....	62
3. Inland Rural Corridor Program	67
4. Coastal Recreation Corridor Program.....	69

LIST OF TABLES

EQ-1. Number of Days Federal or State Standards Were Exceeded.....	10
EQ-2. Marin County Emission Inventory Summary	11
EQ-3. Public Lands and Contract Restricted Lands in Marin County in Acres	18
EQ-4. Federal and State Ambient Air Quality Standards.....	41
EQ-5. Thresholds for Submission of Documents to BAAQMD	42
EQ-6. Suggested Development Review Checklist for Environmental Zones	49
EQ-7. Open Space Areas in the City Centered Corridor	64
EQ-8. Existing and Proposed Open Space Areas in the Inland Rural Corridor	71
EQ-9. Existing and Proposed Additional Open Space in the Coastal Recreation Corridor	72
EQ-10. Types of Recreation Facilities in Marin County	73

LIST OF FIGURES

EQ-1. Environmental Corridors of Marin County.....	5
EQ-2. Typical Cross Section Through County Showing Environmental Zones.....	7
EQ-3. Typical Cross Section of Stream Conservation Zone	8
EQ-4. Typical Area of Bayfront Conservation Zone and Subareas	9
EQ-5. Sensitive Receptors	12
EQ-6. Location of Mineral Resource Preservation Sites	14
EQ-7. Public Park Lands and Open Space	19
EQ-8. Example of Areas Subject to Stream Conservation Area Policies.....	24
EQ-9. Bayfront Conservation Zone.....	33
EQ-10. Ridge and Upland Greenbelt Policy Areas.....	50
EQ-11. Open, Grassy Hillside Design Criteria	51
EQ-12. Wooded Hillside Development Design Criteria	52
EQ-13. Creekside, Coastal, Inland and Bayside Development Design Criteria	53
EQ-14. Design Criteria for Countywide and Community Activity Centers.....	54
EQ-15. Design Principles for Activity Centers	55

I. INTRODUCTION

The Environmental Quality Element contains important policies for protecting the county's natural resources and ensuring that the design of the built environment is compatible with its natural setting. This element establishes three major planning corridors in the County based upon the county's ecosystem: the City-Centered Corridor, the Inland Rural Corridor, and the Coastal Recreation Corridor. The environmental corridor concept is used extensively in other County planning activities as well.

Among the County's notable environmental quality achievements are: 1) 60-acre minimum agricultural zones in the Inland Rural and Coastal Corridors; 2) coastal protection zones; 3) ridge and upland greenbelt planned district zones; 4) bayfront conservation zones; and 5) adoption of design standards for planned districts.

Public open space programs resulting from this document have reserved over 45% of the county land area for public use and environmental protection. Since the District was created by popular vote in 1972, the Open Space District has acquired over 10,000 acres of highly visible and important sensitive lands, most of which is located in the City-Centered Corridor. The County has been an active participant in the development of the Point Reyes National Seashore, the Golden Gate National Recreation Area, and the State Parks program. Watershed protection programs are also based upon the policy framework of this Element.

A number of important County ordinances and program are based on the policies of the Environmental Quality Element. Implementation of these policies has been achieved through zoning of land compatible with the county's natural environment. Many of the County's ordinances and programs have served to protect specific resources, guide project design, and identify parcels targeted for public acquisition.

A. LEGAL AUTHORITY

The Environmental Quality Element, first adopted in 1973, satisfies State requirements for the conservation and open space elements of the Marin Countywide Plan. These requirements read:

Section 65302 (d):

A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources....

and, Article 10.5 Open-Space Lands, Section 65560 (a):

"Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open space plan adopted pursuant to Section 65563.

B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The 1973 Environmental Quality Element contained the County's policies on parks and recreation, trails, noise, seismic, flood and fire hazards, and hazardous materials. Since that time, the County Planning Department has prepared separate general plan elements with detailed policies in each of the environmental areas. Updated policies can be found in the following elements: Agriculture, Environmental Hazards, Noise, Parks and Recreation, and Trails. Detailed coastal, bayfront, and stream conservation policies were adopted in the 1982 amendments to the element.

The Environmental Quality Element is related to other elements in the following manner:

Agriculture Element: Preserves agricultural uses and open space in the Inland Rural and Coastal Recreation corridors.

Community Development Element: Discusses intensity of use in the environmental corridors and identifies land targeted for open space.

Environmental Hazards Element: Relates various environmental conditions to hazards.

Parks and Recreation Element: Provides inventory of parkland.

Trails Element and Map Series: Provides inventory of trails in public open space and discusses acquisition of trails and open space.

C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

Community plans and the Local Coastal Plans I and II often contain conservation or environmental quality chapters, detailing policies for localities. Technically, these plans are considered amendments to the Marin Countywide Plan.

Hazardous waste management hazards and mitigating policies and programs are discussed in the draft County Integrated Waste Management Plan. The Plan is currently in draft form and due for completion in 1994. Although not technically a general plan document, the policies and programs in the waste management program are related to this element.

The following Environmental Quality technical reports serve as appendices to the Element:

- #1 Air Quality Maintenance
- #2 Mineral Resources Preservation Sites
- #3 Protection of Endangered Species

D. ORGANIZATION OF THE ELEMENT

The Environmental Quality Element describes the three environmental corridors and explains how the environmental corridor concept is used as the basis for land use planning in Marin County. As a group, the policies and programs ensure that the County's built environment will be sensitive to the natural environment.

Objectives, policies, and implementation programs in this element are organized by environmental corridor, conservation zone, the built environment, and topics (e.g. air quality, species protection). The policies in this element protect the natural ecosystems in the three corridors. Maps in this document identify ridge and upland greenbelt policy areas, while tables list open space areas acquired and targeted for acquisition.

II. EXISTING CONDITIONS

A. ENVIRONMENTAL CORRIDORS

The Countywide Plan divides Marin into three environmental corridors (see EQ-1), each with a discrete set of open space and development issues. Existing conditions in the City-Centered Corridor, Inland Rural Corridor, and Coastal Recreation Corridor can be characterized as follows:

1. City-Centered Corridor

Most of Marin's people live here in a series of bayfront towns around inlets and peninsulas separated by ridges. The City-Centered Corridor consists of three main environmental zones which affect the kind of development that is appropriate:

The bay shore, consisting of tidelands, marshes, and flat land. Some of this zone has remained in its natural state, but there has been extensive land fill for housing, commerce, and industry.

Bayside plains, generally semi-circular, separated by ridges extending into the bay. Most of Marin's development has occurred here.

Bayside foothills, knolls and ridges, generally heavily wooded on the north slope and grassy on the south slope. This area is experiencing the most pressure, as development moves up out of the bayside plains.

2. Inland Rural Corridor

Two environmental zones extend through this corridor. One is a belt of inland valley and upland meadows, where farms, ranches, rural villages, and water reserves are located. Another is the County's central range of mountains, generally with access too difficult for any but recreational uses.

Much of this corridor is now subject to agricultural contracts under which owners have agreed that they will leave the land in agricultural production, in return for the County assessed value based on agricultural uses only. State law, the Williamson Act, requires that areas including agricultural preserves be zoned for uses that are compatible with agriculture. The County has rezoned the rural portions of central and western Marin for agricultural purposes, with a prevailing residential density of one unit per 60 acres.

3. Coastal Recreation Corridor

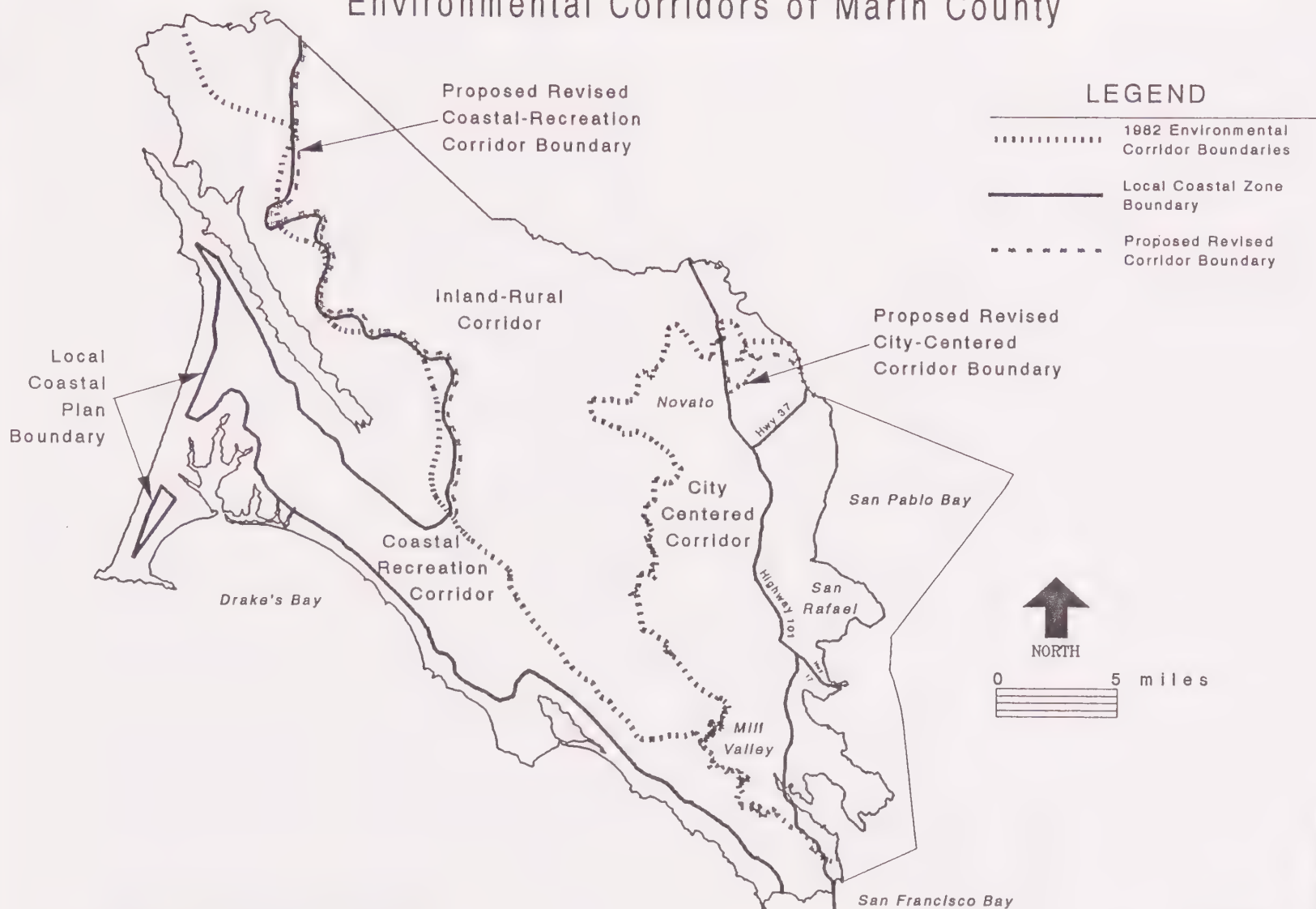
Marin's ocean coast is a rugged, dramatic meeting of land and sea that attracts visitors from throughout the world. Much of the corridor has been acquired by public agencies for recreational purposes - Point Reyes National Seashore, the Golden Gate National Recreation Area, and the Mount Tamalpais, Stinson Beach, and Tomales Bay State Parks.

Detailed findings and policies for this corridor are included in the Local Coastal Program, adopted by the Board of Supervisors and Coastal Commission.

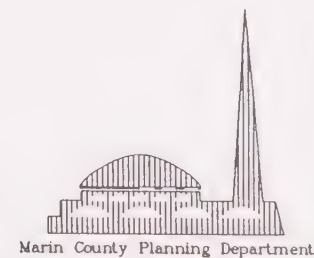
B. RESOURCE CONSERVATION AREAS

The Countywide Plan designates six specific conservation areas where special development restrictions and standards must be established to prevent environmental deterioration.

Figure EQ-1
Environmental Corridors of Marin County



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



1. Stream and Creekside Conservation Zones

This zone consists of buffer zones along all natural watercourses shown as a blue line on the most recent appropriate USGS quad sheet, or supporting riparian vegetation for a length of 100 feet or more. The zones consist of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of the bank, to a width of 100 feet in the Coastal Recreation and Inland Rural Corridors and to a width of 50 feet in the City-Centered Corridor.

2. Coastal Conservation Zone

This area consists of the coastal zone along the western edge of Marin County extending inland from the shoreline 1,000 yards. The Marin County Local Coastal Plan, as approved by the California Coastal Commission, contains the plan for this area, along with policies and standards for future land use, development, and activities.

3. Bayfront Conservation Zone

The Bayfront Conservation Zone is composed of three subzones: the tidelands subzone, the diked bay marshlands and agricultural subzone, and the shoreline subzone (see Figures EQ-2 and EQ-3).

The *Tidelands Subzone* includes all areas subject to tidal action (including salt marshes, beaches, rocky shorelines, and mudflats) and all open water areas. It also includes all the contiguous and adjacent land up to the line of highest tidal action (as applied by BCDC in accordance with the McAteer Petris Act), or the landward dike which circumscribes tidal inflow, or the nearest greater-than-50% developed urban area; or publicly maintained road, whichever of these bounds the largest area of tidal marsh and channels. This subzone further includes a 100-foot band landward on undeveloped land, within which a flexible buffer could be delineated on a case-by-case basis. The purpose of this subzone is to define those areas which should be left in their natural state because of their biological importance to the estuarine ecosystem.

The Diked Bay Marshlands and Agricultural Subzone includes all historic bay marshlands (as determined by Nichols and Wright (1971)). These former marshlands have been diked off from tidal action and in many cases filled or partially filled, and/or converted to agricultural uses, airports, urban development, and in a few instances lagoons with residences. Residential and industrial areas which are at least 50% developed on already filled lands are excluded.

Figure EQ-2. Typical Cross Section Through County
Showing Environmental Zones

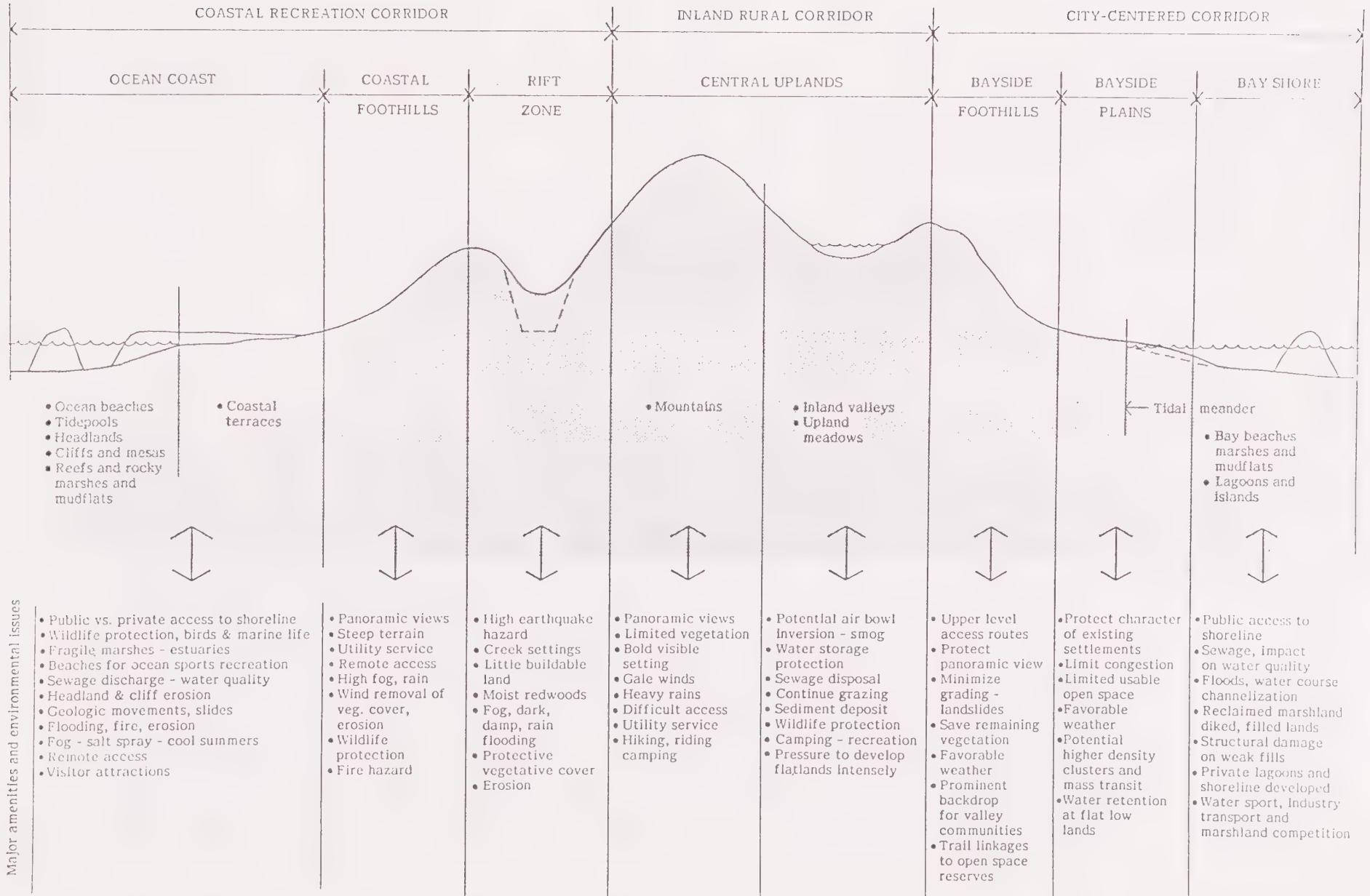


Figure EQ-3. Typical Cross Section of Stream Conservation Zone

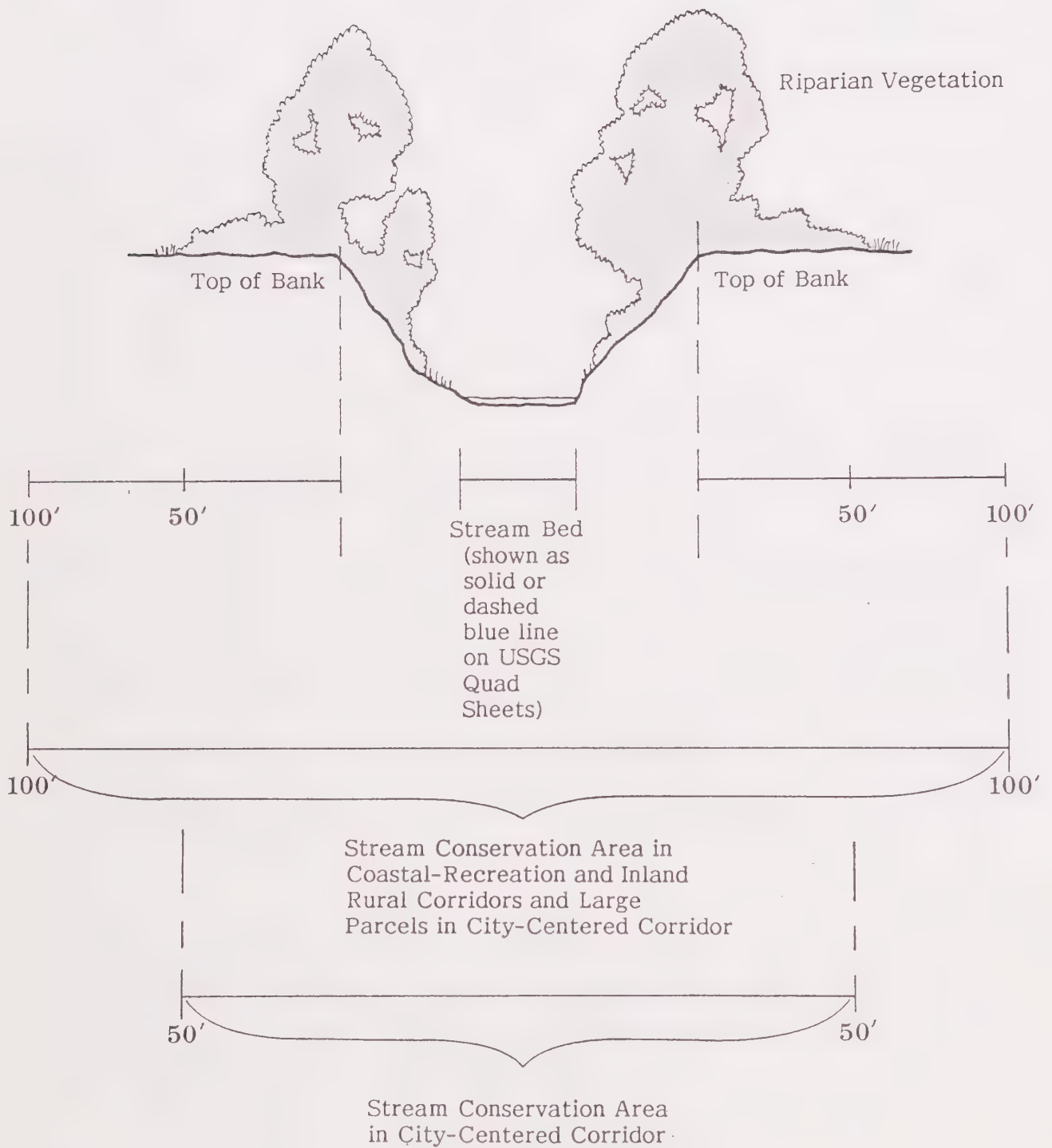
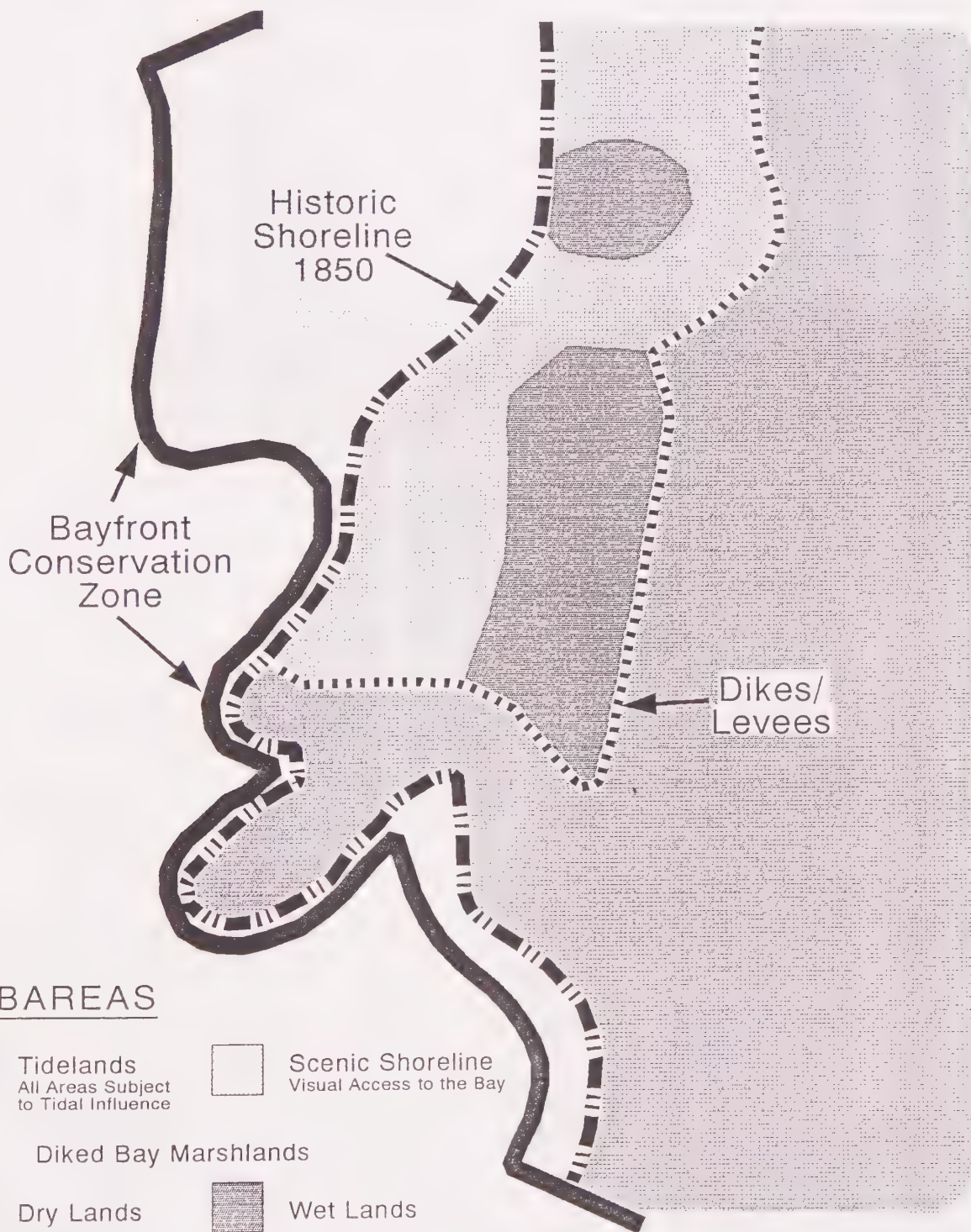


Figure EQ-4. Typical Area of Bayfront Conservation Zone and Subareas

FIGURE EQ-4

TYPICAL AREA OF BAYFRONT CONSERVATION ZONE AND SUBAREAS



The purpose of this subzone is to define those areas in which there are similar subsurface or surface conditions; areas which are close to and functionally related to tidal lands; areas in which it is possible to foster the continuation of agriculture; or, if that ceases, to consider the feasibility of returning undeveloped, unfilled former marshes to a more productive wildlife habitat by restoration. This subzone includes a 100-foot band landward on undeveloped lands, within which a flexible buffer can be delineated on a case-by-case basis.

The Shoreline Subzone which includes a few shoreline areas where main public thoroughfares such as Highway 101, Paradise Drive, and San Pedro Road follow the coastline and promote visual access to the bay. The subzone extends from the bayside of the roadway to the Tidelands Subzone. The purpose of this subzone is to define a viewshed and promote conservation of coastal habitats such as bluff vegetation and wildlife nesting/resting areas.

4. Air Quality Resources

Due to favorable meteorologic conditions in Marin County, the ambient air quality is excellent. However, pollutants generated primarily through vehicle emissions in Marin are a growing concern and may contribute to worsening conditions in other parts of the Bay Area. Tables EQ-1 and EQ-2 report contaminant levels recorded in Marin County in recent years.

**Table EQ-1. Number of Days On Which Federal or State Standards
Were Exceeded at the San Rafael Monitoring Station**

Pollutant	1978	1980	1982	1983-1987
Carbon Monoxide	1	0	0	0
Ozone (O ₃)	2	0	0	0
Nitrogen Dioxide (NO ₂)	0	0	0	0
Sulfur Dioxide (SO ₂)	0	0	0	0
Total Suspended Particles	0	0	0	0

Source: Bay Area Air Quality Management District, San Francisco, CA.

Table EQ-1 seems to imply that no air quality problem exists in Marin County. However, Marin County emissions do contribute to the regional ozone problem. Table EQ-2 reports the amount of pollutants actually pumped into the air in 1982 by the various county land uses. Transportation was the most significant source of pollutants in the county.

**Table EQ-2. Marin County Emission Inventory Summary:
1982 Contaminant Levels**

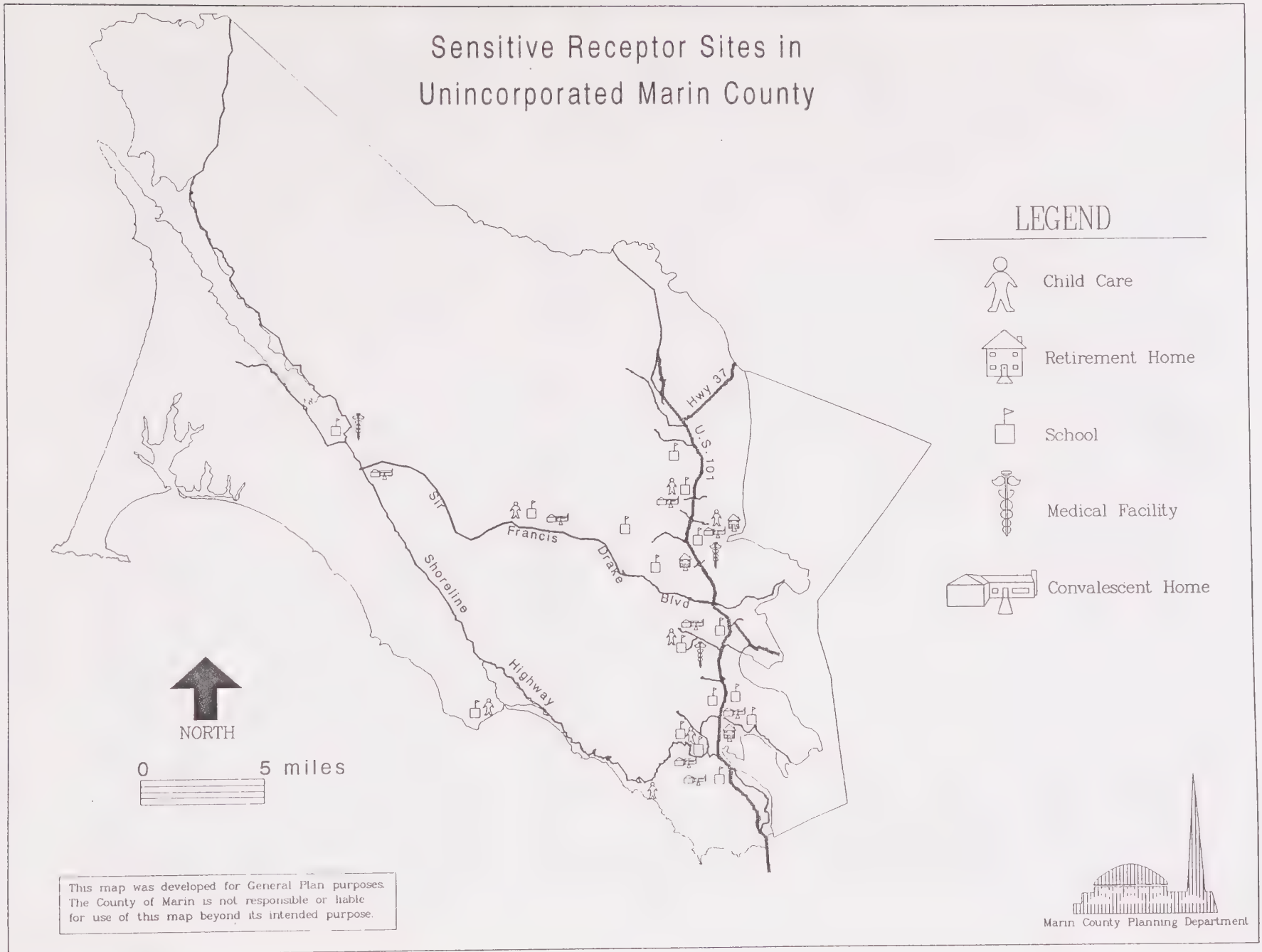
Contaminant in Tons Per Day						
Land Use Category	CO	O ₃	NO ₂	SO ₂	TSP	Total
Residential	3	2	1	0	0	6
Commercial	0	1	0	0	0	1
Industrial	4	4	1	0	0	9
Infrastructure	0	0	0	0	0	0
Construction	0	1	0	0	7	8
Transportation	122	14	12	1	11	160
Agriculture	0	1	0	0	5	6
Total	129	23	14	1	23	190

Source: Air Quality and Urban Development: Guidelines for Assessing Impacts of Projects and Plans. Table VI-A-1. Emission Inventory Summary: 1982 Contaminant Levels, Pg. VI-3. Bay Area Air Quality Management District, Planning Division, November 1985.

The Bay Area Air Quality Management District identifies "sensitive receptors" as facilities in which a number of individuals are highly susceptible to the adverse effects of air pollutants. These facilities include, but are not limited to, hospitals, clinics, schools, playgrounds, child care centers, convalescent and retirement homes. Figure EQ-5 shows the location of sensitive receptor sites within unincorporated Marin County.

Receptor population groups include children, the elderly, the acutely ill and the chronically ill. Individuals with cardiorespiratory diseases are the most susceptible. Due to the presence of children, infirm, and the elderly in most residential neighborhoods, these areas should be considered sensitive receptors. The proximity of some sensitive receptors to heavily traveled roads means that these populations may be exposed to higher concentrations of carbon monoxide and nitrogen dioxide, especially during and after the commute rush hours.

Figure EQ-5



5. Mineral Resources

The State of California Division of Mines and Geology has developed and applied a broad classification system for all mineral resources in California. This classification system has allowed the State Mining and Geology Board to "designate" certain highly valuable sites for which local general plan resource preservation policies are required. The County is required by law to respond to State directives under the Surface Mining and Reclamation Act of 1975 (SMARA).

The State has prepared information by region as to the mineral deposits, including aggregate, of statewide or regional significance. The North San Francisco Bay Production Consumption Region includes Sonoma, Marin, and Napa Counties. The Region is dependent upon both crushed stone and alluvial deposits for construction, particular asphaltic concrete, aggregate, road base or sub-base materials, and Portland Cement Concrete. Of these resources, fine sand and gravel suitable for Portland Cement Concrete appears to be the most limited in supply.

The total consumption through the year 2030 is estimated to be 478 million tons for the North Bay region. This projection was derived from consumption records and population estimates from the past 28 years. The average per capita rate per year is 8.8 tons. The per capita rate may be expected to differ if growth patterns in the North Bay change. Unforeseen events, such as disaster reconstruction, could dramatically change the consumption pattern as well.

Six of the sites designated in Marin County have been identified as Mineral Resource Zones, Class 2, or MRZ-2 by the State Division of Mines and Geology. MRZ-2 lands contain:

- a deposit composed of material that is suitable as a marketable commodity; and,

- a deposit which meets a threshold value defined as a gross selling price of at least \$5 million in 1978 dollars.

The seventh site, Ring Mountain, is considered to be a Scientific Resource Zone (SZ) rather than a production site due to the rare geologic formations found there. All sites are shown on Figure EQ-6.

Figure EQ-6

Location of Mineral Resource Preservation Sites



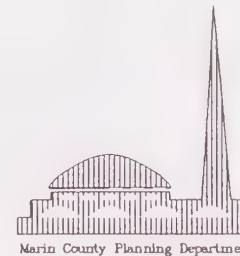
Mineral Resources 1987

- 1 Ring Mountain Scientific Resource Zone
 - 2 Sector D-1 Novato Conglomerate
 - 3 Sector D-2 Novato Conglomerate
 - 4 Sector I San Pedro Hill- Franciscan Complex Sandstone
 - 5 Sector J Burdell Mountain - Sonoma Volcanics Andesite
 - 6 Sector L Franciscan Complex
 - 7 Sector M Franciscan Complex Serpentinite
 - 8 Sector V Burdell Mountain Open Space - Sonoma Volcanics Andesite
- Mineral Site

This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

Comments:
Regionally Significant Construction
Aggregate Resource Areas in The
North San Francisco Bay
Production-Consumption Region

Source:
State Mining and Geology
Board January 1987



6. Timber Production

State law requires that the general plan designate parcels zoned for timberland production. However, there are no lands designated for timber production in Marin County.

C. THE BUILT ENVIRONMENT

The built environment in Marin County is generally suburban in character, with low-density and low-rise development. The City-Centered Corridor adjacent to Highway 101 contains 97.5% (23,019,926 square feet) of all commercial and industrial space in the County and approximately 88% of the County's housing stock. Although historic downtown districts exist in many Marin cities and coastal towns, the majority of structures were constructed in the post-World War II era and most of the residential subdivisions in the City-Centered Corridor were built in the 1960s and 1970s.

Views toward the ridges and shorelines from Highway 101 and connecting arterials have become a matter of community concern. Prior to the 1973 Countywide Plan, many community members were concerned that commercial and residential uses along Highway 101 would obstruct views to the County's natural features and create a canyon effect for commuters. The quality of the built environment and its impact on the natural environment were recognized in the 1971 planning document "Can the Last Place Last?," which laid the conceptual groundwork for a series of general policies that were adopted into the 1973 Countywide Plan. Design standards for the built environment were established in response to community concerns about obstructed view corridors from Highway 101.

The earlier policies have been retained and are listed as Policies EQ-3.1 through EQ-3.14 in the current Environmental Quality Element. As a package, the policies spell out a program to protect biological systems while minimizing resource consumption and creating functional, safe, and aesthetically desirable man-made environments. The intention of these design standards is to complement the Open Space Acquisition program and to protect the natural environment whenever possible.

Marin County has abundant archaeological and historical resources. The County was inhabited by the Coast Miwok tribe at the time of Euro-American contact. Nearly 100 archaeological sites have been investigated since the late 1940's, although less than five percent of the total land area in the county has been surveyed for archeological importance. The majority of prehistoric archaeological sites have been identified along the historical margins of the bay shore, at the base of hills, and on midslope terraces along watercourses.

Evidence of the Coast Miwok tribe is preserved in several locations throughout the county, including Point Reyes National Seashore and Olompali State Park. It is likely that numerous sites remain undiscovered. Archeological sites throughout the county should remain undisturbed and possible sites should be examined prior to development. Policies in this element require that the design and siting of development avoid archaeological resources.

Early settlement patterns are still visible in many Marin County communities. The county also has a number of historically significant areas and structures. These historical resources are protected through several mechanisms including enforcement of the Marin County Code (Title 22) which limits alterations to historic structures built prior to 1930. The Local Coastal Program Historic Study (1981) provides guidelines for historic preservation, in addition to studies done for specific communities. Historic preservation serves an important cultural function in retaining the past as a constant reminder of the heritage and value of an evolving society.

D. OPEN SPACE

Prior to World War II, agriculture was the dominant land use in Marin County. After the war, suburban growth consumed numerous farmlands along Highway 101 while a strong land conservation movement helped secure public open space for recreational use, including Samuel P. Taylor State Park, Mount Tamalpais State Park, and the Marin Municipal Water District watershed lands.

In the 1960's, several important events continued to shape both agriculture and open space in Marin: 1) the Federal Government purchased 71,000 acres of coastal land to create Point Reyes National Seashore; 2) Caltrans proposed a new east-west freeway connecting the Richmond Bridge to Point Reyes Station (Route 17) which met with severe local opposition and was abandoned; and, 3) the State passed the Williamson Act which offered lower property taxes on qualifying agricultural lands in exchange for continued agricultural use of those lands. In light of these factors, the County revised its land use policy for West Marin in 1971. The 1971 revision encouraged recreation in West Marin and supported agriculture by implementing minimum 60-acre lot zoning.

In the City-Centered Corridor, a strong conservation movement led to the formation of the County Open Space District in 1972. In order to acquire key parcels in the eastern urban corridor for public use, the district levied a local property tax and successfully lobbied for the passage of several millions dollars in local bonds.

In 1973, the County adopted the first Environmental Quality Element which established target areas for continued purchase with Open Space District revenues. The priorities for purchase within the broader target areas are revised annually by the Open Space District Board. Because development pressures are strongest within the City-Centered Corridor, this corridor has historically been the focus of the District's preservation activities.

The Countywide Plan identifies a total of 28,490 acres for open space preservation, through purchase or other means. In cooperation with local communities, the State of California Parks Department, and the Federal Government, the Open Space District has achieved 56% of its acquisition target for the City-Centered Corridor, a total of 16,041 acres.

The Open Space District often leverages public funds by coordinating its activities, such as land purchases, with other government and non-profit programs. Only 28% of the District land acquisition costs have involved sole acquisitions by the District. Conversely, the Open Space District has contributed funding and staff time to three major projects of statewide significance: San Pablo Bay State Wildlife Area, China Camp State Park, and Rancho Olompali State Park.

The Open Space District's budget includes the cost of land acquisition and land management. Land acquisition costs include the purchase price of a property or properties, as well as expenses for appraisals, title work, surveys, legal descriptions, and deed review. The Open Space District's land management responsibilities include erosion control, protective road grading, tree pruning, gate and fence construction, security patrol, drainage maintenance, species management, fire protection, parking, signage, and trails construction.

Unlike other County departments, which are funded through general County revenues, the District does not compete in the County budget process. District funds accumulate annually until used for long-term property purchases. Between 85% and 90% of the District's funds are derived from local property taxes, and State and Federal monies provide very little of the District's funds.

The County's open space preservation efforts have realized considerable benefit from Proposition 70, the California Wildlife, Coastal and Parkland Conservation Bond Act (known as CALPAW) passed in June of 1988. Proposition 70 provides a \$776 million State bond which includes grants of \$5 million for Marin County's open space program, \$1.6 million for conservation of the North Ridge of Mount Tamalpais, and \$15 million for West Marin agricultural preservation. The Board of Supervisors has designated the Marin Agricultural Land Trust as administrator of the agricultural preservation program.

Acquisitions by the Federal and State governments and the Marin Municipal Water District have helped the County achieve its open space acquisition targets. The Federal Government's acquisitions at Point Reyes National Seashore and the Golden Gate National Recreation Area have contributed to County open space targets in the Inland Rural Corridor and Coastal Recreation Corridors. The State of California has also contributed to open space targets in the Inland Rural Corridor through its expansion of the Samuel P. Taylor Park and by securing the historic Olompali Park. The Marin Municipal Water District has secured the Soulagule Reservoir and expanded its lands around the Nicasio Reservoir in the Inland Rural Corridor. Although the targets for these corridors have been exceeded in terms of total acreage (see Tables EQ-8 and EQ-9), a number of important stream course buffers and minor conservation areas identified in the original program have not yet been acquired.

In terms of land use, the Assessor reports that publicly owned lands constitute almost 40% of the total acreage of the County. As shown in Table EQ-3, an additional 24% of the County land is restricted by agricultural and open space contract.

**Table EQ-3. Public Lands and Contract Restricted Lands
in Marin County in Acres**




Category	Subtotal	Total	% of County
Public Lands		152,797	39.3
Federal Parks	92,538		
State Parks	12,853		
Local Parks	2,115		
Marin Watershed	22,731		
County Open Space	12,560		
Tidelands, Marshes, Mudflats	10,000		
Water Area		55,424	14.3
Contract Restricted		93,093	24.0
Agricultural Preserves	90,736		
Open Space Preserves	2,357		
All Other Land Uses		87,038	22.4
Total Acreage in the County		388,352	100.0

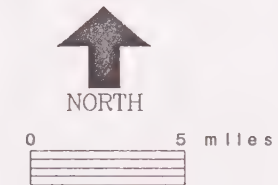
Source: Marin County Assessor, September 30, 1987.

Figure EQ-7
Public Park Lands and Open Space

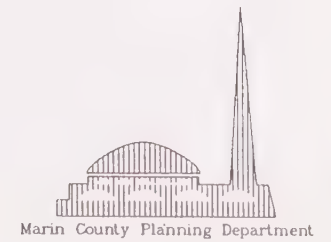


LEGEND

-  State and Federal Parks
-  Water District Watershed Lands
-  City and County Parks and Open Space



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



E. SPECIES PROTECTION

The lands in Marin provide habitat for a rich variety of plants and animals. Eleven major biotic communities exist in Marin County and each community provides habitat for a distinct grouping of plant and animal species (see Technical Report #3, Species Protection in Marin, for greater detail). However, several species of plants and animals and some natural communities in Marin County are becoming increasingly rare, due to changes in the landscape caused by human activities. Both Federal and State governments have adopted laws to protect species threatened with extinction. In order to comply with these laws, local planning agencies must ensure that development and other human activities do not adversely impact endangered species, or the habitat upon which they depend for survival. Through the development review process, the County seeks to protect the natural habitat from detrimental human activity.

The California Department of Fish and Game has developed a classification of "special status species," which recognizes the need to protect plants and animals of concern other than those classified as endangered, threatened, or candidate for endangered or threatened status. Special status species fall under one or more of the following categories:

- 1) Officially listed or proposed for listing under the State of California and/or the Federal Endangered Species Acts;
- 2) State of California or Federal candidate species for possible listing;
- 3) A California Department of Fish and Game Species of Special Concern;
- 4) Species that may be considered endangered or rare under Section 15380(d) of CEQA guidelines;
- 5) A Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service Sensitive Species;
- 6) Species listed in the California Native Plants Society's Inventory of Rare and Endangered Vascular Plants of California;
- 7) Species that are biologically rare, very restricted in distribution, or declining throughout their range, but are not currently threatened with extirpation;

- 8) Population(s) of species in California that may be peripheral to the major portion of a species' range but are threatened with extirpation in Marin County or in the State of California;
- 9) Species closely associated with a habitat that is declining in California at an alarming rate (e.g. wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, vernal pools, etc.).

Indiscriminate development can destroy whole habitats or lead to patches of habitats. If these patches are too small in area, they may not be able to support the organisms that would ordinarily live there. Species vary among habitat types. Edges between habitats can be particularly rich in wildlife and often serve as distinct habitats, supporting edge-dependent species.

Preserving habitat diversity is the most effective method for preserving plant and animal diversity. For this reason, specific development proposals must be reviewed in terms of overall impact on habitat diversity. The Environmental Quality Element contains policies which serve as the basis for development review criteria that preserve native species; protect the native environment; and discourage aggressive, exotic species.

III. OBJECTIVES, POLICIES AND IMPLEMENTATION PROGRAMS

A. ENVIRONMENTAL CORRIDORS

Objective EQ-1. Environmental Corridors. To establish a broad land management framework derived from the County's natural environmental zones as a basis for local policies and regulation.

Policy EQ-1.1 **Land use of the City-Centered Corridor.** Urban development will be concentrated in the City-Centered Corridor so that the rest of the County can remain as open as possible, in accordance with the Association of Bay Area Government's Regional Plan.

Policy EQ-1.2 **Land use of the Inland Rural Corridor.** Agricultural land uses will be emphasized in the Inland Rural Corridor along with other uses that are compatible with agriculture.

Policy EQ-1.3 **Land use of the Coastal Recreation Corridor.** Open Space and Recreational land uses will be emphasized in the Coastal Recreation Corridor along with the preservation of existing coastal communities.

B. RESOURCE CONSERVATION AREAS

Objective EQ-2. Resource Conservation Areas. To identify and conserve specific resources through General Plan policies based upon important environmental factors in Marin County.

(Note: Because of varying policies regarding Conservation Areas, the following recommendations apply only in the unincorporated portions of the County. Cities and towns with similar environmentally sensitive areas should prepare their own conservation guidelines, or adopt the County's as appropriate. In addition, cities and towns should adopt appropriate ordinances to implement these guidelines.)

1. Stream and Creekside Conservation Areas

a. General Policies

Policy EQ-2.1

Value of riparian systems. Riparian systems, streams and their riparian and woodland habitat are irreplaceable, and should be officially recognized and protected as essential environmental resources, because of their values for erosion control, water quality, fisheries production, aesthetics and recreation.

Policy EQ-2.2

Streams defined as blue lines on USGS quad maps. All perennial and intermittent streams, which are defined as natural watercourses shown as solid or dashed blue lines on the most recent appropriate USGS quad sheet, should be subject to these stream and creekside protection policies. A perennial stream is further defined as a watercourse that flows throughout the year (except for infrequent or extended periods of drought), although surface water flow may be temporarily discontinuous in some reaches of the channel such as between pools. An intermittent stream is further defined as a watercourse that flows during the wet season, continues to flow after the period of precipitation, and ceases surface flow during at least part of the dry season. An ephemeral watercourse, which carries only surface runoff and flows during and immediately after periods of precipitation, should be subject to these policies if it supports riparian vegetation for a length of 100 feet or more.

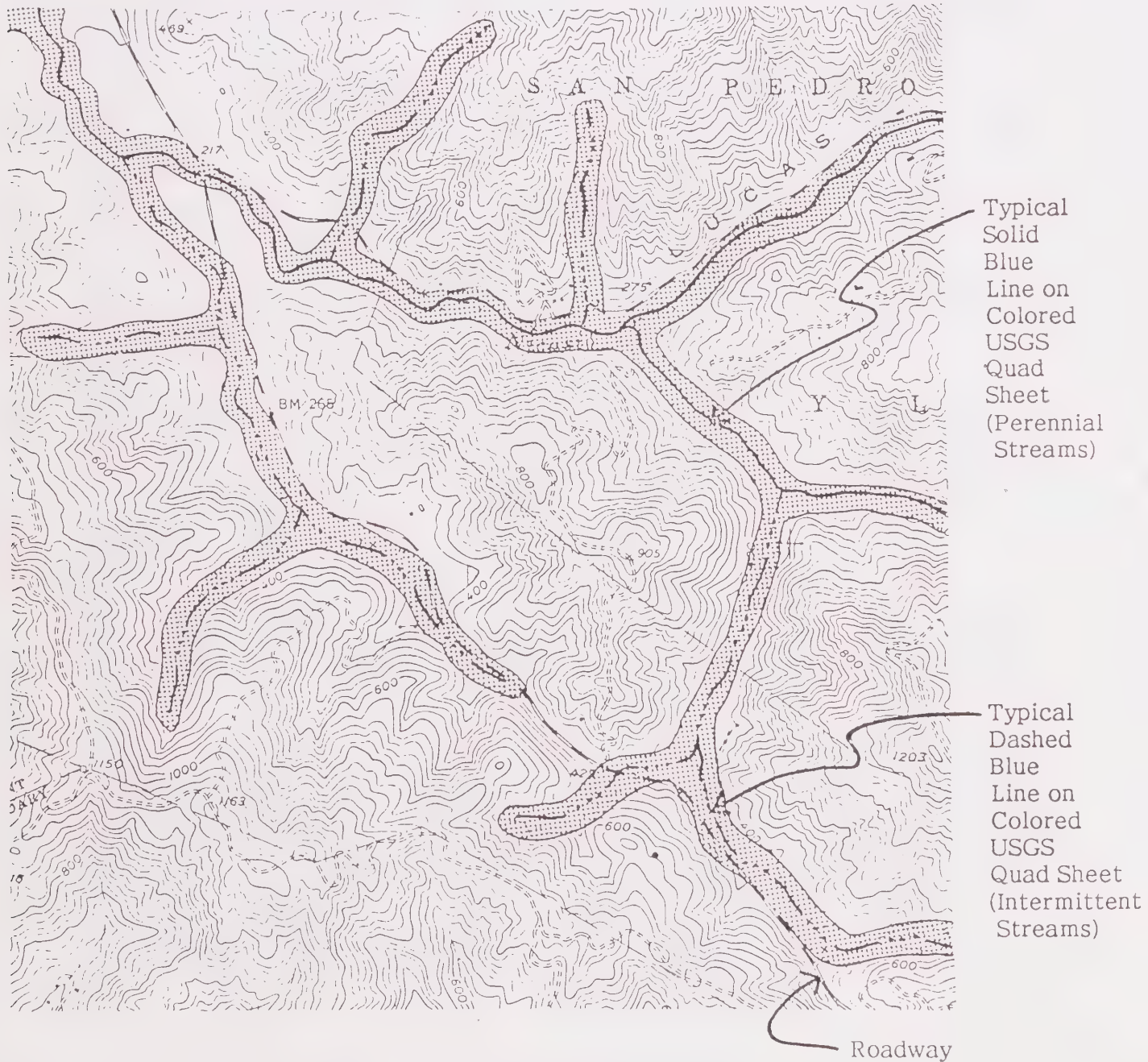
Policy EQ-2.3

Definition of Stream Conservation Areas. A Stream Conservation Area (SCA) should be designated along all such streams, to consist of the watercourse itself and surrounding banks on both sides up to the high water mark and a strip of land extending laterally outward from the top of both banks, to a width of 100 feet on each side in the Coastal Recreation and Inland Rural Corridors and to a width of 50 feet on each side in the City-Centered Corridor.

Where large tracts of land in the City-Centered Corridor are proposed for development, the 100-foot buffer should be applied, where consistent with legal requirements, and other planning and environmental goals.

Figure EQ-8. Example of Areas Subject to
Stream Conservation Area Policies

Portion of San Geronimo USGS Quad Sheet



In the Coastal Recreation and Inland Rural Corridors, the zone should be extended if necessary to include an area 50 feet landward from the edge of riparian vegetation.

Program EQ-2.3a

Protection of Stream Conservation Area. The County shall implement the policies for Stream Conservation Areas through its established permit review processes and/or through adoption of specific new ordinances. When a building, excavation, or other permit is applied for, it will be determined whether the proposed development falls within the zone, generally 100 feet from the bank of blue line streams in the Coastal Recreation and Inland Rural Corridors and 50 feet from the bank of blue line streams in the City-Centered Corridor. If the project is in this zone, it will be determined whether the proposed use is permitted by right under the Stream Conservation policies, as well as in the underlying zoning.

If the proposed use is neither permitted under Policy EQ-2.4 nor prohibited under Policy EQ-2.5 of Stream Conservation policies, but is allowed under the zoning, the applicant may apply for a development permit. In order for such a permit to be issued for an existing parcel, it shall first be necessary to determine either that the parcel falls entirely within the Stream Conservation Area or that development on any other portion of the parcel would have greater impacts on water quality than if development occurred within the zone. If the proposal involves the creation of a new parcel, any needed modifications should be made to assure that no development occurs within the Conservation Area to the extent possible.

Applicants shall be required to submit adequate information to determine whether the Stream Conservation Area policies are being met. All development permit applications shall be reviewed for conformity with these policies, and in accordance with the California Environmental Quality Act. Proposals which do not conform to Stream Conservation policies, and which cannot be modified or mitigated so that they do conform, shall be denied. Information on 100-year floodplains should be made available on display maps for public and staff reference and shall be incorporated into all planning reviews.

Policy EQ-2.4

Land uses in Stream Conservation Areas (SCAs). The following uses are permitted in the SCA by development permits, provided these uses are allowed by the underlying zoning: all currently existing structures and uses including reconstruction and repairs, necessary water supply projects; flood control projects; developments to improve fish and wildlife habitat; grazing of livestock and other agricultural uses; maintenance of water channels for erosion control and other purposes; road and utility line crossings; water monitoring installations; trails.

Policy EQ-2.5

Prohibited land uses in Stream Conservation Areas. The following new uses are prohibited in the SCA: roads and utility lines, except at crossings; confinement of livestock, dumping or disposal of refuse, use of motorized recreational vehicles and any structural improvement (excluding repairs) other than those identified in Policy EQ-7, including residences, barns, and storage buildings, unless allowed by a development permit in Policy EQ-9.

Policy EQ-2.6

Other allowable land uses in the Stream Conservation Areas. Other uses may be allowed in the SCA by development permits, provided these uses are allowed in the underlying zoning, on existing parcels that fall entirely within the zone or on existing parcels where it can be conclusively demonstrated that development on any other part of the parcel would have a more adverse effect on water quality or other environmental impacts. Such development should conform to all policies for SCAs.

Policy EQ-2.7

Costs of alternatives for modifications to streams. All concerned agencies should take aesthetic, scenic, environmental, and recreational benefits into full consideration when computing costs of alternatives for modifications of streams. (It should be noted that State law requires a permit from the Department of Fish and Game for the modification of any stream bed.)

b. **Preservation of Existing and Native Vegetation Policies**

Policy EQ-2.8 **Retention of the natural vegetation.** The retention of the natural vegetation on a SCA should be encouraged in order to realize many benefits, such as soil erosion prevention, stream, shade, etc. When vegetation must be removed and soil disturbed within the SCA, the area should be reseeded or replanted with native plants of the habitat as soon as possible removing broom and other aggressive exotic plants, so as to restore the vegetative cover.

Policy EQ-2.9 **Minimal disturbance of natural vegetation.** Minimum disturbance should be made of vegetation within the SCA, especially those trees and shrubs providing shade and stability for the streamcourse. This does not imply that tree growth will not be cleared from the stream channel when it unduly restricts flood flows.

Policy EQ-2.10 **Tree and shrub plantings.** Trees and shrubs to be planted along watercourses should include a variety of species that would naturally grow in or near the creek. Generally, exotic trees should be avoided.

Policy EQ-2.11 **Modification of natural channels.** Modification of natural channels within SCAs for flood control, etc., should be done in a manner that retains and protects the vegetation forming ground cover and shade. Special attention should be given to the protection of riparian vegetation.

c. **Fish and Wildlife Protection and Enhancement Policies**

Policy EQ-2.12 **Importance of Stream Conservation Areas (SCAs) to wildlife habitat.** SCAs are the most important land areas for wildlife, possessing greater numbers and variety than any other area. The value of SCAs for this purpose is therefore recognized. Fishery resources are directly dependent upon the protection of SCAs to provide quality aquatic habitats.

A system of wildlife habitat areas representative of Marin County's floral and faunal streamside communities should be established and permanently maintained. Human use of these areas should be restricted as necessary to protect these communities. However, designation of SCAs shall not in any manner authorize trespass upon private property, or increase the right of public agencies to gain access to private property.

Policy EQ-2.13

Monitoring Stream Conservation Areas. A system of monitoring SCAs should be established to assure the protection of vegetation, soils, and wildlife habitat along streams.

Policy EQ-2.14

Stream alterations. Before any stream alterations are permitted, the minimum water flows necessary to protect fish habitats, water quality, riparian vegetation, groundwater recharge areas, and downstream users should be determined in conjunction with the State Department of Fish and Game and the Division of Water Rights of the State Water Resources Control Board.

Policy EQ-2.15

Modification and mitigations of development within Stream Conservation Areas. When a fish or other wildlife resource may be substantially affected by development in this zone, modifications and mitigations should be required in the project, to be determined in consultation with the State Department of Fish and Game.

Policy EQ-2.16

Stream management programs. Projects and stream management programs which improve the opportunity for fishing and enhance the abundance of sport fish should be encouraged and supported.

d. Erosion Control Policies

Policy EQ-2.17

Soil disturbance. Soil disturbance should be discouraged within the SCA. Where absolutely necessary it should be limited to the smallest surface area and volume of soil practical and for the shortest practical length of time.

- Policy EQ-2.18** **Surface runoff.** Surface runoff rates in excess of pre-development levels should be kept to an absolute minimum. Runoff should be retained on-site and released at pre-development rates, unless to do so creates greater problems than releasing it.
- Policy EQ-2.19** **Retention of sediment.** On-site facilities for the retention of sediments produced by development should be provided during construction and, if necessary, upon project completion, and continuing maintenance of these facilities should be required.
- Policy EQ-2.20** **Roads, road spoils, and roadfill slopes.** New roads and roadfill slopes should be located outside the SCA, except at stream crossings. No spoil from road construction should be deposited within the SCA. At road crossings in the SCAs, special effort should be taken to stabilize soil surfaces.
- Policy EQ-2.21** **Altering stream flow, bed or banks of stream channel.** Filling, grading, excavating, obstructing the flow, or altering the bed or banks of the stream channel and riparian system should be allowed only under emergency conditions or where no reasonable alternative is available, by permit granted by the Environmental Protection Committee, which should include possible mitigation measures.
- Policy EQ-2.22** **Seasonal development factors.** Development work adjacent to and affecting SCAs should be done during the dry season only, except for emergency repairs. Disturbed surfaces should be stabilized and replanted, and areas where woody vegetation has been removed should be replanted with suitable species before the beginning of the rainy season.

e. Use and Aesthetics Policies

- Policy EQ-2.23** **Enhancement of Stream Conservation Areas.** Uses and development within SCAs should serve to enhance the appearance and usability of the creeks by preserving visual access, and coordinating site development. The County should work in close cooperation with the flood control and water districts in the design and choice of materials for the construction and alterations within the SCAs.

Policy EQ-2.24

Public access to Stream Conservation Areas. Public access to the creeks which run through lands in public ownership should be encouraged and improved where feasible by means of pathways, access points, and bridges. Placement of streamside trails should diverge from the stream course or lead to a viewpoint in order to protect streamside wildlife corridors. Additional public lands should be added adjacent to streams where possible to make resources more accessible and usable for passive recreation.

Policy EQ-2.25

Restoration of damaged portions of Stream Conservation Areas. Damaged portions of SCAs should wherever possible be restored to their natural state. Portions of the channels that have been significantly altered for flood control have potential for urban open space uses as landscaped areas and paths.

f. **Management Policies**

Policy EQ-2.26

Water resource management. Water resources should be managed in a systematic manner that is sensitive to natural capacities, ecological impacts, and equitable consideration of the many water-related needs of the County.

Policy EQ-2.27

Protection of watersheds, aquifer recharge areas, and natural drainage systems. High priority should be given to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.

Policy EQ-2.28

Upstream development impacts. The cumulative effect of up-stream development on downstream land uses should be considered. Development fees, standards, and other measures to mitigate downstream impact should be considered.

Policy EQ-2.29

Water impoundment areas. Water impoundment areas should have marginal protection areas and should be protected and maintained for their water supply and for their environmental and recreational values.

- Policy EQ-2.30** **Water quality.** Water quality should be maintained or enhanced to allow the continued environmental health of natural waterway habitats.
- Policy EQ-2.31** **Educational uses.** The use of streams and surrounding lands for educational purposes should be encouraged.
- Policy EQ-2.32** **Streams in development plans.** Streams should be incorporated into development plans for sites abutting the waterways instead of being fenced off, except where safety requirements warrant otherwise.
- Policy EQ-2.33** **Land divisions in Stream Conservation Areas.** Land divisions should be reviewed for size of parcels and property line locations relative to creeks to allow management of the creek by one property owner, to the greatest extent possible.
- Policy EQ-2.34** **Responsible agencies/individuals.** Any agency or individual responsible for management of SCAs should undertake the responsibility for implementation of all SCA policies.

g. **Flood Control Policies**

- Policy EQ-2.35** **Floodplain management ordinance.** The ordinance for floodplain management in compliance with regulations for the Federal Flood Control Insurance Program should continue to be implemented.
- Policy EQ-2.36** **Flood control channels.** The multiple use of flood control channels should be encouraged.
- Policy EQ-2.37** **Geologic hazards in flood control areas.** Geologic hazards in locations where dams, ponds, and other water impoundments exist or are proposed should be identified in the environmental review process. Appropriate modifications and mitigation measures should be required.
- Policy EQ-2.38** **Flood control measures.** Flood control measures should retain natural features and conditions as much as possible. Compatible uses (agriculture, wildlife habitat, recreation, etc.) of flood ponding areas and seasonal floodways should be promoted.

Policy EQ-2.39 **Flood ponding areas.** Publicly controlled flood ponding areas should be retained; ponding covenants or easements held by the Flood Control District on property should not be transferred to other properties to allow development within floodways.

Policy EQ-2.40 **Alteration to floodways, floodplains and ponding areas.** Filling or other physical alteration in floodways, floodplains, or ponding areas should be limited to the minimum necessary as determined in development permits issued by the County.

2. Coastal Conservation Areas

Policy EQ-2.41 **Conservation of coastal resources.** The conservation of coastal resources shall be maintained following detailed policies in the Local Coastal Plans I and II adopted by the County and the Coastal Commission.

3. Bayfront Conservation Areas

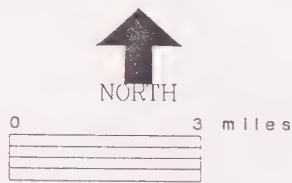
a. Habitat Protection and Restoration Policies

Policy EQ-2.42 **Habitat protection in Bayfront Conservation Areas (BCAs).** The County shall preserve and enhance the diversity of wildlife and aquatic habitats found in the Marin County bayfront lands, including tidal marshes, seasonal marshes, lagoons, natural wetlands, and low-lying grasslands overlying historical marshlands.

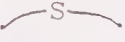


Program EQ-2.42a Protection of Bayfront Lands. To insure protection and enhancement of the bayfront lands, the County will continue to implement project review procedures in the Bayfront Conservation Zone.

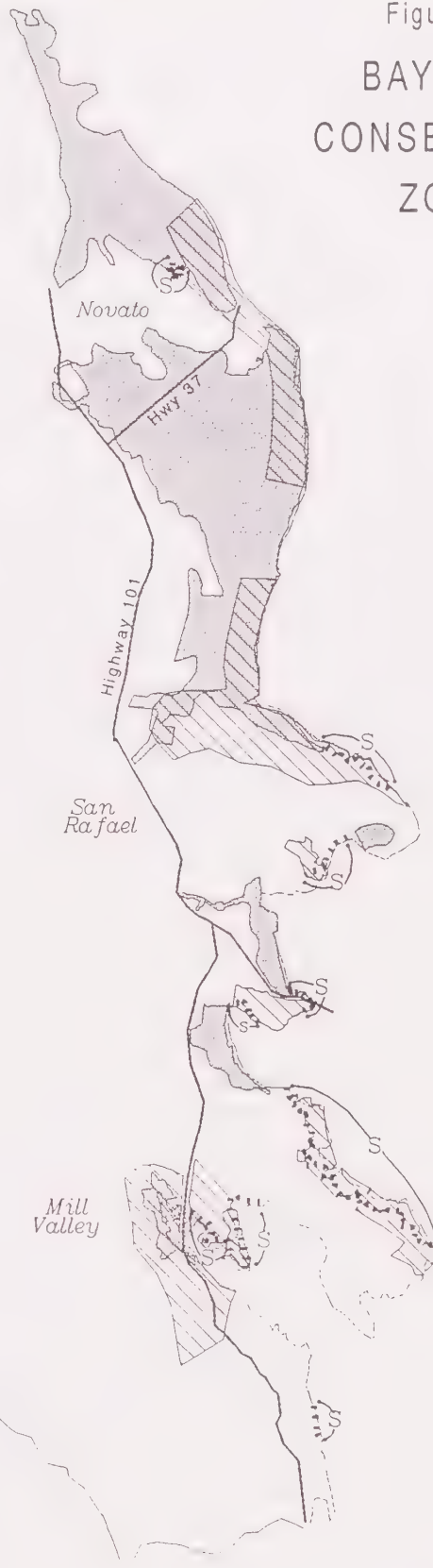
Policy EQ-2.43 **Development and access limitations in Bayfront Conservation Areas.** Development should not encroach into sensitive wildlife habitats, limit normal range areas, create barriers which cut off access to food, water, or shelter, or cause damage to fisheries or fish habitats. Buffer zones between development and identified or potential wetland areas should be provided.

Figure EQ-9
BAYFRONT
CONSERVATION
ZONES

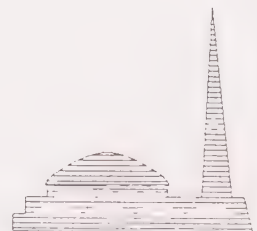


LEGEND

-  Shoreline Subzone
-  Diked Bay Marshlands and Agricultural Subzones
-  Unincorporated Areas along Bayfront



This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.



Marin County Planning Department

An assessment of existing environmental conditions (biologic, geologic, hazard, and aesthetic) shall be required prior to submittal of development plans.

Program EQ-2.50a

Planning District Approach. The County will rezone all parcels within the Bayfront Conservation Zone to Planned Districts (where this is not already the case). Based on the findings and recommendations of the environmental assessment, the applicant would prepare a master plan. Many of the potential environmental impacts of development in the bayfront lands can be mitigated by proper siting and by buffer zones between projects and adjacent wetlands. After review and approval by the County, the applicant would then prepare a detailed development plan. This would also be reviewed and acted on by the County.

Policy EQ-2.51

Coordination with trustee agencies within Bayfront Conservation Areas. The County shall facilitate consultation and coordination with the trustee agencies (Department of Fish and Game, U.S. Fish and Wildlife Service, the Corps of Engineers, and BCDC) during environmental review and during review of other proposals for lands within the Bayfront Conservation Zone.

Program EQ-2.51a

Early Consultation with Other Agencies. Any development project within the Bayfront Conservation Zone is subject to the review, and possibly the permit process, of federal and state agencies with jurisdiction over wetlands. It is critical that the applicant consult with these agencies at the very outset of a development project. The County will make every effort to coordinate its review process with the review process of other agencies, consulting with them on the environmental assessment and the master plan. The applicant will be informed at the first contact with the Planning Department which other agencies are likely to claim jurisdiction and what the policies and standards of those agencies are regarding development activities in the Bayfront Conservation Zone. The data and maps prepared as part of the Appendix to Part 2, Bayfront Conservation Zone (Madrone Associates, July 1980) will aid County staff in providing this information to applicants.

b. Protection of Environmental Quality Policies

- Policy EQ-2.52** **Minimal impacts within Bayfront Conservation Zone.** The County shall ensure that development in the County occurs in a manner which minimizes the impact of earth disturbance, erosion, and water pollution within the Bayfront Conservation Zone.
- Policy EQ-2.53** **Disruption to runoff and stream flow.** Disruption or impediment to runoff and stream flow in the watersheds of Marin County marshes should not be permitted if either can be shown to diminish the quality of the water entering the marshes and bay.
- Policy EQ-2.54** **Siting of industrial facilities.** The development and siting of industrial (and any other) facilities adjacent to bayfront areas should be planned to eliminate significant adverse environmental impacts on the water quality of the bay and marshes.
- Policy EQ-2.55** **Tides and currents.** The development of jetties, piers, outfalls, etc., should not be allowed to alter the movement patterns of the bay's tides and currents, such that significant adverse impacts would result.
- Policy EQ-2.56** **Bay fill.** The County shall discourage any bay fill that diverts and retards currents, increases the deposition of sediments, or causes erosion and pollution.
- Policy EQ-2.57** **Waste discharge.** The County shall not permit waste discharge which would contaminate water resources or otherwise adversely affect any intertidal environment. Municipal discharges should move toward partial consolidation and relocation of discharge points.

c. Agricultural Uses in Bayfront Lands Policies

- Policy EQ-2.58** **Protection of existing agricultural lands.** The County shall protect existing agricultural lands in the Bayfront Conservation Zones.

These lands are an important resource for the County: they are a visual and scenic resource; they play an integral role in other agricultural and dairy operations in Marin County; they are a productive economic resource; and they are compatible with water-related wildlife habitat. Such agricultural activities could consist primarily of grazing operations and crop production harmonious with adjoining marshes, wetlands, grasslands, or other sensitive lands.

Policy EQ-2.59 **Natural vegetation.** Agricultural activities should minimize removal of natural vegetation where possible.

Policy EQ-2.60 **Pesticides, insecticides and similar materials.** Use of pesticides, insecticides, etc., should comply with existing federal and state standards, as implemented by the County Agricultural Commissioner.

d. **Protection from Geologic, Flooding and Other Hazards Policies**

Policy EQ-2.61 **Consistency with Environmental Hazards Element.** Any development proposed for lands within the Bayfront Conservation Zone must be consistent with policies and proposals of the Environmental Hazards Element, including avoidance of areas that pose hazards such as differential settlement, slope instability, liquefaction, ground shaking and rupture, tsunami, and other ground failures.

Policy EQ-2.62 **Areas underlain by deposits of bay muds.** Those areas underlain by deposits of "young muds" should be reserved for water-related recreational opportunities, habitat, open space, or limited development subject to approval by the Corps of Engineers and other trustee agencies.

Policy EQ-2.63 **Sites with poor soil conditions or sites which are seismically active.** Any development (within the watershed areas) proposed for sites that have poor soil conditions for construction or that are seismically active should be designed to minimize earth disturbance, erosion, water pollution, and hazards to public safety.

Policy EQ-2.64

Land uses in floodplains. Areas defined as floodplain should serve the dual purpose of habitat and flood protection. Areas should be evaluated periodically to determine whether increases in the volume and rate of runoff from urbanization or natural forces warrant further flood mitigation measures.

Policy EQ-2.65

100-year floodplain areas. The County's regulatory procedures should reflect 100-year floodplain areas.

e. **Public Access and Bayfront Recreation Policies**

Policy EQ-2.66

Public use of shoreline areas. Public use of the shoreline areas is desirable and should be encouraged consistent with ecological and safety considerations.

Policy EQ-2.67

Ensuring public access of shoreline areas. The County shall ensure that public access is provided and protected along the bayfront and significant waterways. The County views public access easements, gained through offers of dedication, as a condition of development plan approval, as the primary means available to increase public access opportunities.

Policy EQ-2.68

Public access easements. The County will accept, as resources permit, public access easements where the offered easement is in a developed area (density of one unit per acre or greater) and substantial use could be expected by local residents. Where the County accepts an easement, it will be responsible for signing, providing appropriate facilities, and maintaining the easement. If the County does not accept an easement, it shall attempt to find appropriate public or private agencies to do so.

Policy EQ-2.69

Evaluation of new public access areas. The County shall evaluate potential new public access areas in order to determine the feasibility of providing access and the priorities for acquisition, based on the following criteria: desirability of the site, capacity to sustain use without significant adverse impacts on the bayfront habitat and wildlife, potential for hazard to public safety or health, availability of other public access points in the area, and compatibility with adjacent land uses.

Policy EQ-2.70

Siting and design of public access. Public access should be sited and designed to facilitate public use and enjoyment of the bayfront lands. Public areas should be clearly marked, and continuous ten-foot walkways from the nearest roads to the shoreline and along the shoreline should be provided. Public access areas should be designed to minimize possible conflicts between public and private uses on the properties. Walkways should generally be set back at least ten feet from any proposed structure.

Policy EQ-2.71

Wildlife recreational and educational uses of the shoreline. Within the Bayfront Construction Zone, provision should be made for recreational development and access to the shoreline marshes for such uses as fishing, boating, hunting, picnicking, hiking, and nature study. There should be provisions for both separated wildlife preserve and more intensively used recreational uses along the bayfront. Every available appropriate means of providing public education regarding the value of shoreline preservation and the shoreline as an educational laboratory shall be encouraged.

f. **Aesthetic and Scenic Quality Policies**

Policy EQ-2.72

Viewshed protection. The County shall protect visual access to the bayfront and scenic vistas of water and distinct shorelines through its land use and development review procedures. This viewshed protection is essential for the preservation of Marin County and San Francisco Bay identity, for the enhancement of aesthetic qualities, and for visual and psychological relief from adjacent urban environments.

Policy EQ-2.73

View corridor identification and enhancement. Existing obtrusive man-made elements, such as overhead utilities, which detract from the shoreline and marsh landscape should either be eliminated or blended into the environment. Specific localities with opportunities for near and distant views in the bayfront and waters of the bay should be identified, protected and enhanced by improvements (turn outs, benches, etc.) where possible. View corridors and low profile should be maintained on sites adjoining these locations.

Policy EQ-2.74

Design of waterfront development for optimal bayfront views. Waterfront development in particular should be designed for openness and permit optimal views for public enjoyment of bayfront lands.

4. Air Quality Resources**Policy EQ-2.75**

County's air quality standards. The County shall adhere to the Federal or State air quality standards, whichever is more stringent, for management of locally generated pollutants.

Table EQ-4. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	National Standard	California Standard
Carbon Monoxide (CO)	8-Hour	9.30 ppm	9.00 ppm
Ozone (O ₃)	1-Hour	0.12 ppm	0.09 ppm
Nitrogen Dioxide (NO ₂)	Annual	0.05 ppm	-----
	1-Hour	-----	0.25 ppm
Sulfur Dioxide (SO ₂)	Annual	0.03 ppm	-----
	24-Hour	0.14 ppm	0.05 ppm
Total Suspended Particulate (P.M. < 10)	Annual Geometric Mean	-----	30 ug/m ³
	24-Hour	-----	50 ug/m ³

ppm = Parts per million

ug/m³ = micrograms per cubic meter

P.M. < 10 - Particulate matter less than 10 microns in diameter

Source: U. S. Environmental Protection Agency; California Air Resources Board

Policy EQ-2.76

Coordination of air quality planning efforts. The County shall coordinate air quality planning efforts with other local, regional, and State agencies.

Program EQ-2.76a

Project review for air quality concerns. The County shall notify local and regional jurisdictions of locally proposed projects in unincorporated areas which may affect regional air quality, as governed by project type and size thresholds in Table EQ-5.

**Table EQ-5. Thresholds for Submission of Environmental Documents
to BAAQMD For Selected Land Use Categories**

Land Use Category	Threshold Levels
Housing	
Single Family	200 units
Apartments	300 units
Parking	250 spaces
Shopping Center	
Regional	60,000 ft ² or 6 acres of land area
Neighborhood	60,000 ft ² or 6 acres of land area
Individual Store	60,000 ft ² or 6 acres of land area
Industry	
Undifferentiated	15 acres
Mass Production	15 acres
Industrial Park	20 acres
Administration	20 acres
Warehouse	20 acres
Research & Devel.	40 acres
Office Bldg	100,000 ft ²
Government Bldg	30,000 ft ²
Motel	200 units
Restaurant	
Full Service	700 seats
Fast Food	40 employees
Drive-in	4,000 ft ²
Theater	900 seats

Any facility attracting or generating more than 1,927 motor vehicle trips/day (969 vehicles, in and out) will be subject to BAAQMD review.

For a detailed description of emissions and methodology, see Air Quality and Urban Development Guidelines for Assessing Impacts of Projects and Plans, Bay Area Air Quality Management District, November 1985, Page II-3.

- Program EQ-2.76b Cooperative enforcement of Federal, State and regional air quality standards. The County shall cooperate with the BAAQMD and California Air Resources Board in enforcing the provisions of the Clean Air Act, State, and regional policies and established standards for air quality.
- Policy EQ-2.77 **Location of land uses near air pollution services.** The County shall consider air pollution impacts when locating air pollution sensitive land uses near sources of air pollution in future land use planning.
- Program EQ-2.77a Location of air pollution point sources near other land uses. The County should consider air pollution impacts when locating air pollution point sources such as manufacturing, extracting, and hazardous materials storage sites proximate to residential areas and other sensitive receptors.
- Program EQ-2.77b Upwind location of sensitive receptors. The County should consider the potential air pollution impacts of locating sensitive receptors near freeways, arterials and other major transportation facilities and should urge location of these uses upwind of such transportation facilities.
- Policy EQ-2.78 **Air quality impacts of proposed projects.** The County shall review proposed projects for their potential to have an impact on air quality conditions as part of the County's Environmental Review Process.
- Program EQ-2.78a Air quality mitigations. The County shall require projects which generate high levels of air pollutants to incorporate air quality mitigations in their project designs.
- Policy EQ-2.79 **Vehicular-generated pollutants.** The County shall support a transportation program which serves to reduce commuting and/or increases ridesharing so as to reduce pollutants emitted by vehicular combustion engines.
- Policy EQ-2.80 **Vehicular congestion during peak hours.** The County shall seek ways to reduce vehicular congestion during peak commuting hours in order to reduce emissions from combustion engines during those times.

5. Mineral Resources

- Policy EQ-2.81** **Protection of designated mineral resource sites.** The County shall protect designated sites from temporary or permanent land uses which would preclude or inhibit timely mineral extraction to meet market demand.
- Program EQ-2.81a Designated mineral resource sites identified. The County shall assign the label "Designated Mineral Resource" and shall create and map an overlay zoning district for all Sectors designated by the California Division of Mines and Geology within unincorporated Marin County. These sites include all or portions of the following parcels, identified by Assessor Parcel Numbers: 184-01-15,16,52 (San Pedro Hill), 125-180-62 (Mt. Burdell), 119-010-08 and 119-060-12 (Borello), 125-150-26 (Ghilotti). Further reference may be found in Part III. Classification of Aggregate Resource Areas North San Francisco Bay Production-Consumption Region. Special Report 146 by the California Department of Conservation, Division of Mines and Geology, 1983.
- Program EQ-2.81b Ring Mountain, designated mineral resource - scientific zone. The County shall further assign the label "Designated Mineral Resource-Scientific Zone" to all or portions of the following parcels (Ring Mountain) 038-182-31,32,36,37 to preclude future development or mining operations on this unique resource and will indicate affected areas on County zoning maps.
- Program EQ-2.81c Notice on property titles of mineral resource areas. The County shall record on property titles in the affected mineral resource areas a notice identifying the presence of important mineral resources.
- Policy EQ-2.82** **Buffer between potential mineral extraction areas and incompatible land uses.** The County shall further protect designated mineral resource sites by creating a buffer of land uses between potential mineral extraction areas and areas with land uses incompatible with mining.

- Program EQ-2.82a Designated Mineral Resource Overlay Zone District. The County shall include requirements in its "Designated Mineral Resource" overlay zone district to require a sufficient buffer of land uses between mining and land uses incompatible with mining.
- Policy EQ-2.83 **Nuisances, hazards or adverse environmental impacts of mining operations.** The County shall assure that after mitigation measures are taken, a proposed mining operation will not create significant nuisances, hazards, or adverse environmental impacts.
- Policy EQ-2.83a **Mitigations to address nuisances.** The County shall amend Marin County Code Section 23.06.040 application (for mining permit) to require applicants to list what mitigations will be taken to address nuisances to neighbors for permits requested after the date of adoption of these policies.
- Policy EQ-2.84 **Reclamation of mined lands.** The County shall assure that all mining operations provide for adequate reclamation of mined lands before issuing mining or quarrying permits.
- Program EQ-2.84a Reclamation requirements. The County shall continue to enforce the reclamation requirements of Marin County Code Section 23.06.

C. THE BUILT ENVIRONMENT

Objective EQ-3. The Built Environment. To establish a method and approach for managing the built environment within the context of the natural environment and available resources of Marin County.

1. General Policies

- Policy EQ-3.1** **Project review procedures.** Marin County shall continue to implement and review specific procedures for reviewing public and private actions that significantly affect the quality of the environment throughout the county, in accordance with the characteristics of each proposed action and each potential location.
- Policy EQ-3.2** **Air, water, and noise pollution.** Air, water, and noise pollution shall be prevented or minimized.
- Policy EQ-3.3** **Radioactive, chemical, and biological health hazards.** Radioactive, chemical, and biological health hazards to humans or wildlife shall not be created, and existing levels shall be reduced.
- Policy EQ-3.4** **Damage or change to natural hydrological and biological processes.** No operation shall cause irreversible damage or more than minimum reversible change to natural hydrological and biological processes.
- Policy EQ-3.5** **Protection of unique geologic, ecologic, archaeologic, and historic sites.** Unique geological, ecological, archaeologic, and historic sites shall be protected. Significant natural features shall be included for preservation in their natural state and in an appropriate setting in any design or plan.
- Policy EQ-3.6** **Wildlife, vegetation and habitats.** A diversity and abundance of wildlife and marine life shall be maintained. Vegetation and animal habitats shall be preserved wherever possible.

- Policy EQ-3.7** **Avoidance of hazards from earthquake, erosion, landslide, floods, fires, and accidents.** Construction and operations shall be located and designed to avoid or minimize the hazards from earthquake, erosion, landslides, floods, fire, and accidents.
- Policy EQ-3.8** **Built environments.** Built environments, where people spend most of their time, shall be healthful, safe, quiet, and of good design both functionally and aesthetically.
- Policy EQ-3.9** **Adverse impacts on services, circulation, economic, and social environment.** Projects shall not cause significant adverse impacts on water supply, fire protection, waste disposal, schools, traffic and circulation, or other services and facilities, or on the financial or social environment of the community.
- Policy EQ-3.10** **Coordination of public services.** Water supply, flood control, wastewater and solid waste disposal, soil conservation, open space preservation, and natural resource extraction shall be coordinated to create the greatest public benefit and the least degree of environmental damage.
- Policy EQ-3.11** **Visual qualities and views.** Visual qualities and view potential of both natural and man-made settings shall be an equivalent consideration with other factors in any project or operation review. Tree-cutting and damage shall be avoided wherever possible.
- Policy EQ-3.12** **Minimal resource use and recycling.** Resource use shall be the minimum necessary. Recyclable and biodegradable materials shall be utilized, and used materials shall be recycled or reused whenever possible. Use of reclaimed water should occur whenever possible.
- Policy EQ-3.13** **Rapid or disruptive population and economic growth.** Rapid or disruptive population and economic growth shall be prevented.

Policy EQ-3.14 **Aggressive exotic plants.** The planting of aggressive exotic plants such as broom and pampas grass should be discouraged in any development over which the County has review authority.

2. Design Criteria

The criteria for evaluating the design quality of structures in various environmental zones contained in Figure EQ-2 and the accompanying figures should be used in reviewing proposed actions and in establishing requirements and incentives for the development of land.

Policy EQ-3.15 **Ridgetop preservation.** On open, grassy hillsides, buildings should be clustered well below the ridge, rather than scattered or grouped at the ridge top, to avoid the appearance of sprawl (see Figure EQ-11).

Policy EQ-3.16 **Upland greenbelt preservation.** On wooded hillsides the preservation of trees is of paramount concern; here, a more spread-out development pattern is desirable. (see Figure EQ-12).

Policy EQ-3.17 **Creekside development.** Along creeks, development must retain the natural appearance, prevent water pollution, and minimize flood hazards from runoff (see Figure EQ-13).

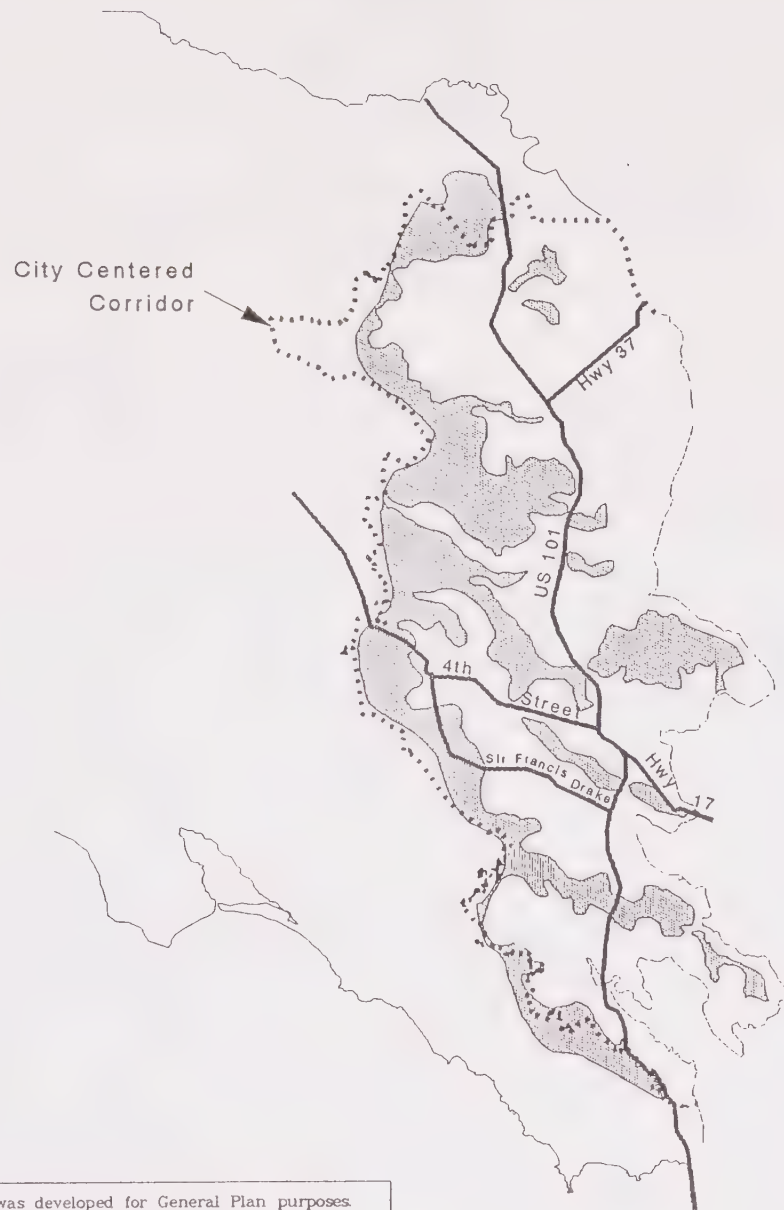
Policy EQ-3.18 **Low-lying mudflats and tidal fill areas.** On low-lying mudflats or tidal fill areas, public access to creeks, streams, and the shoreline and protection of plant and animal habitats are essential (see Figure EQ-13).

Policy EQ-3.19 **High-intensity nodes of development-activity centers.** The design of high-intensity nodes of development in the City-Centered Corridor is especially important, because these areas are viewed and visited by large numbers of people. They include countywide activity centers, smaller community activity centers, and business development areas such as office concentrations and industrial parks. Business, commercial, and high-density residential development should be concentrated in these centers, shown in the Community Development section of the Plan (see Figure EQ-14).



Table EQ-6. Suggested Development Review Checklist
for Environmental Zones

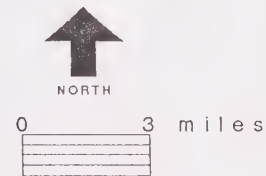
Environmental Zone	Important--Should be Required	Desirable--Negotiate with Incentives
1. Wooded Hillides Coastal Foothills Central Upland Mountains Bayside Foothills <i>See Fig. 2.12</i>	Trees retained in natural setting Substantial area where natural litter and soils buildup can occur	Buildings set apart (scatter OK) Buildings grouped naturally in tree area, no detrimental grading or runoff Ridge line not developed
2. Open Grassy Hillides Coastal Foothills Central Upland Mountains Bayside Foothills <i>See Fig. 2.11</i>	Rural roads and minimal lighting Graded cuts and fills replanted with fire protective plant material	Buildings clustered in packets below ridge line (no scatter) Grazing or management plan for retaining grassy hillside character Planting program with native growth predominant
3. Creek Settings Coastal Terraces Inland Valleys Bayside Plain <i>See Fig 2.13</i>	Use of creek as common open space in natural setting Management program for preventing excess stream blockage and maintaining natural riparian vegetation Prevent gullying by diversion of excess surface runoff Creek setting as buffer to development with connecting trails to larger usable open space reserves	
4. Bayfront Conservation Zone	Policy provisions of the Bayfront Conservation Zone	
5. Bayside Plains Enclosed valley or area exposed to travel <i>See Fig 2.14</i>	Sympathetic relationship to existing built environment in vicinity Central usable open space linked to perimeter open space areas	Buffer zone landscaped, not fenced at traffic corridor on boundary Focal or prominent feature protected, rock outcrop special wall, clump of trees
6. All Environmental Zones <i>See Fig. 2.15</i>	Cluster for reducing cost of roads and utilities; savings passed on in reduced unit cost charges Dedicated or managed usable open space in ratio to developed area Exterior grounds and building maintenance program Usable greenbelts, landscaped or natural with paths and trails	Sediment production increased minimally or stabilized Provision for elderly, handicapped, group care facilities Recreation facilities, clubhouse, tennis courts, swimming, other Walk system to reach schools, church, and shopping with traffic conflicts minimized Road system easily understood by visitors

Figure EQ-10 Ridge and Upland Greenbelt Policy Areas



LEGEND

-  Ridge and Upland Greenbelt Policy Area
-  City Centered Corridor



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

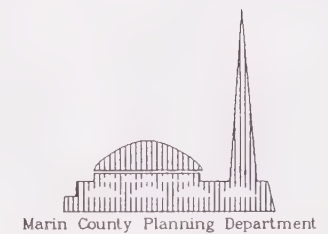


Figure EQ-11. Open, Grassy Hillside Design Criteria

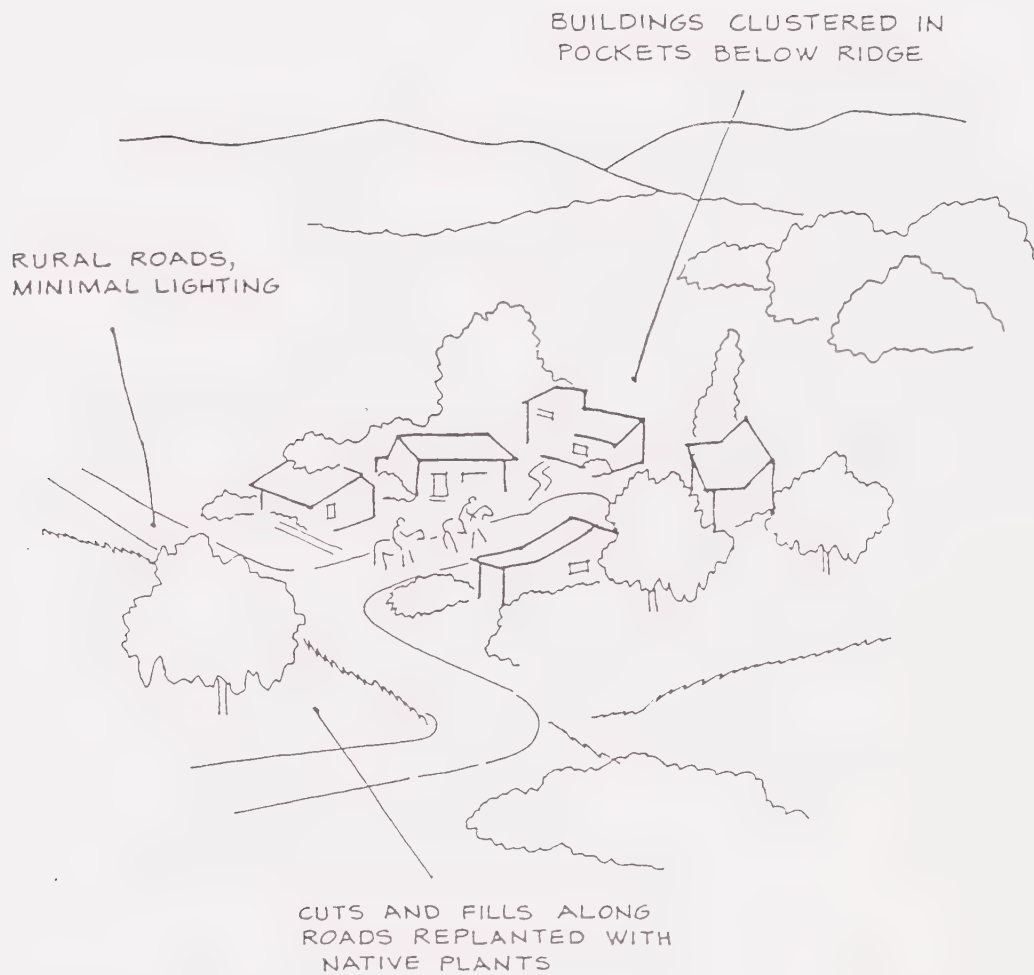


Figure EQ-12. Wooded Hillside Development Design Criteria

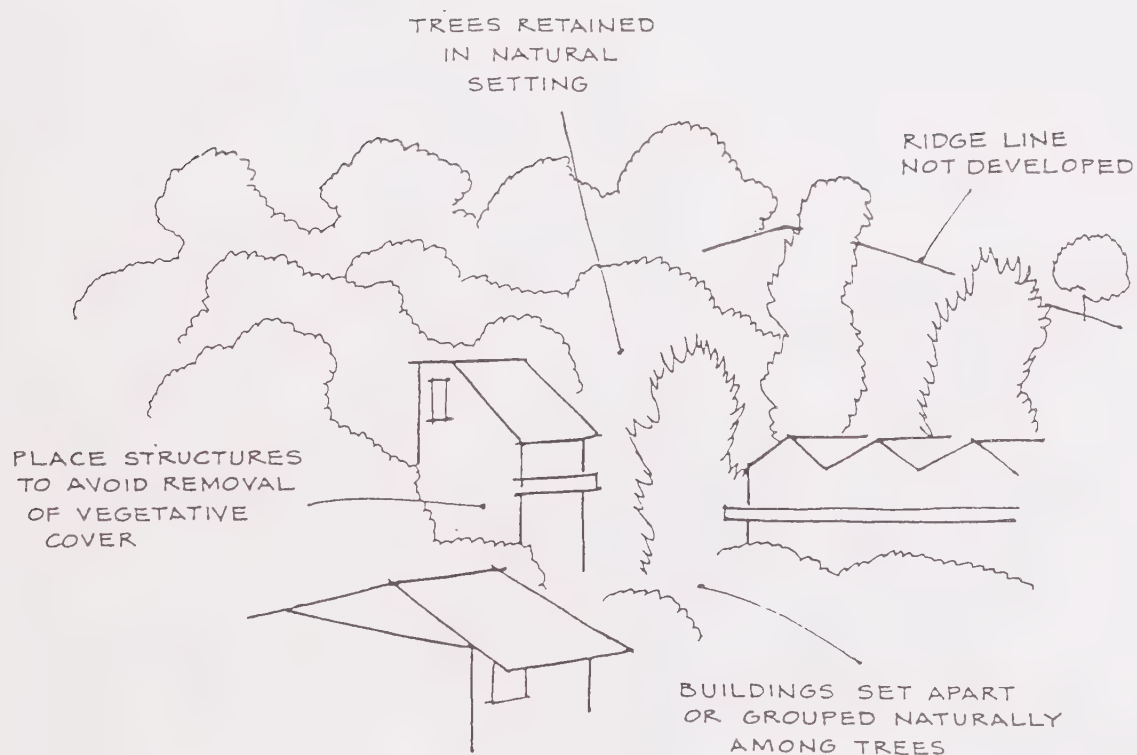


Figure EQ-13. Creekside, Coastal, Inland, and Bayside
Development Design Criteria

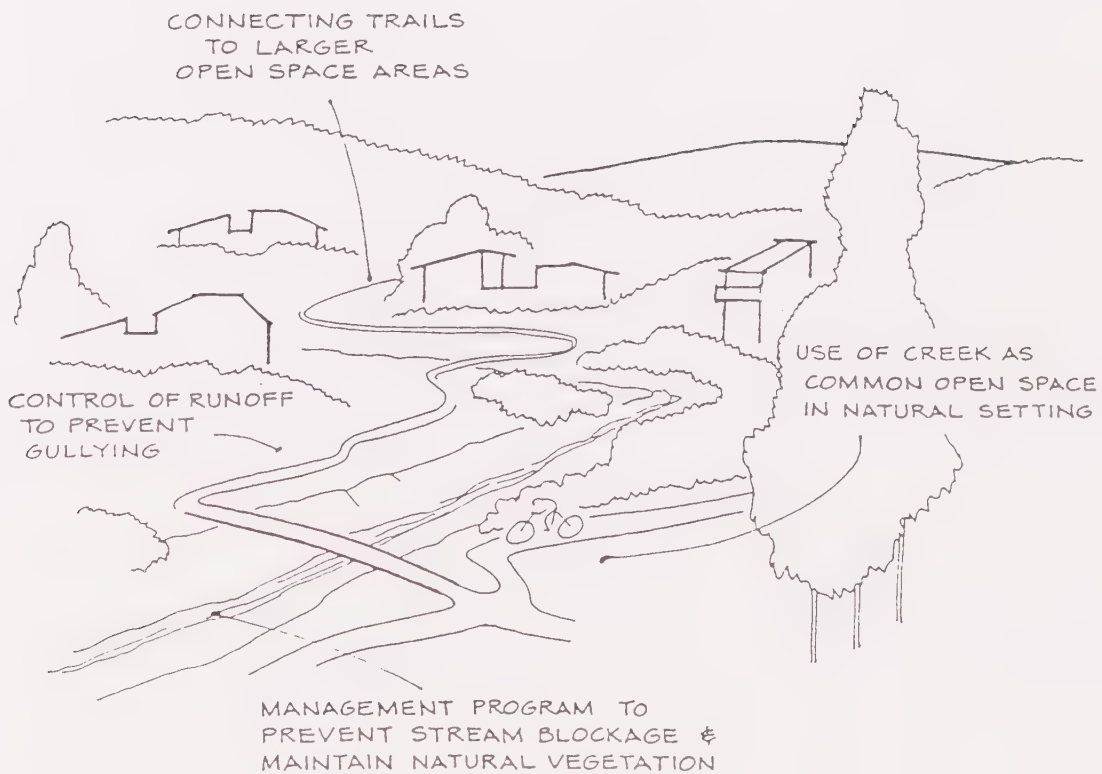


Figure EQ-14. Design Criteria for Countywide and Community Activity Centers

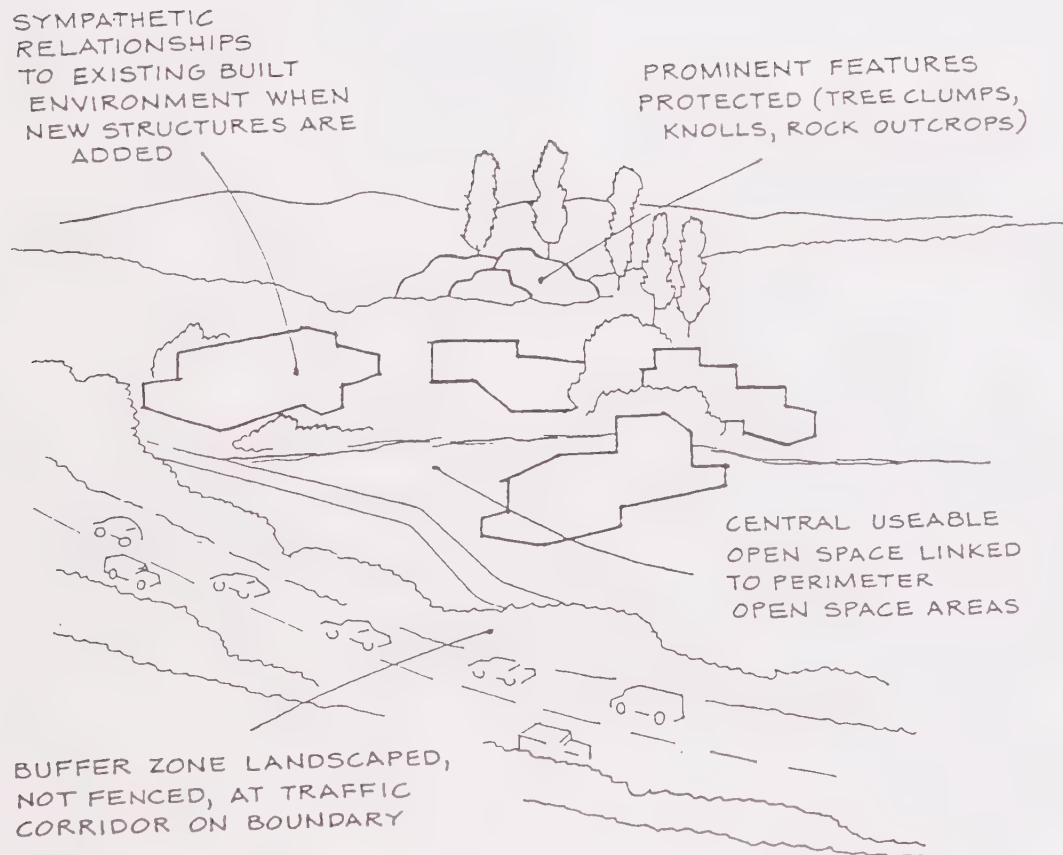
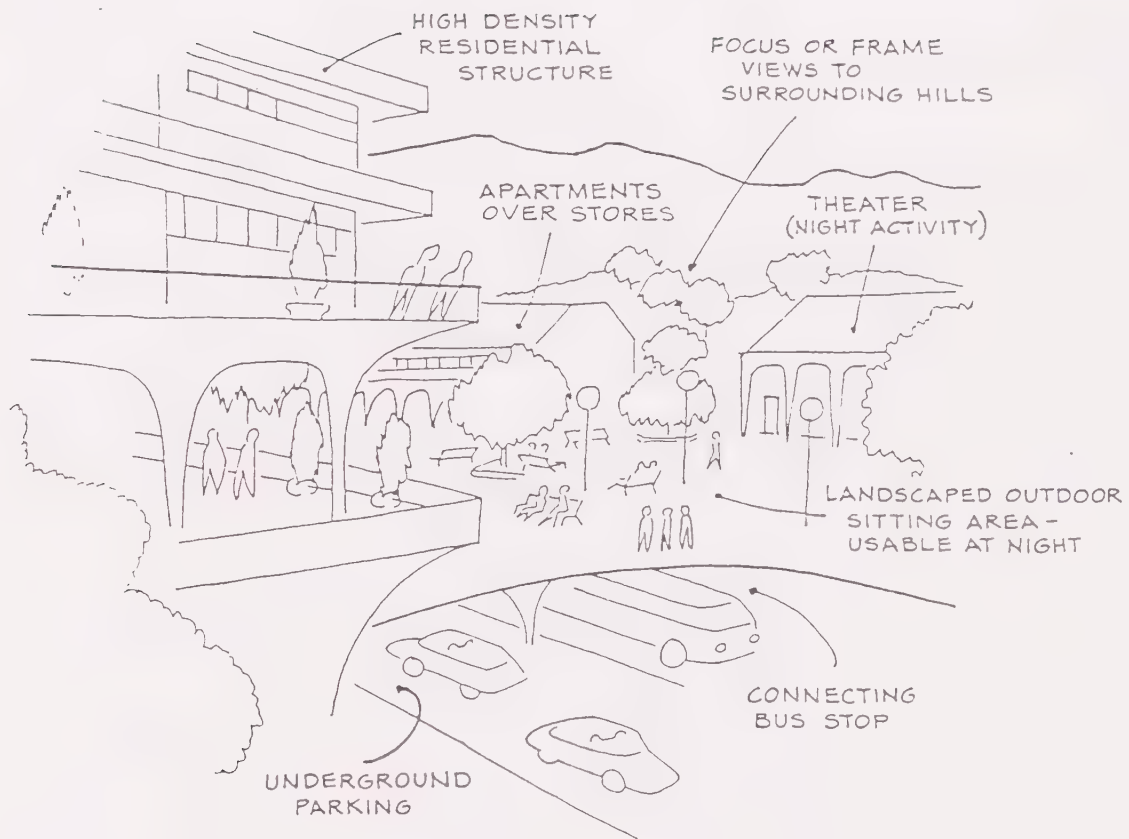


Figure EQ-15. Design Principles for Activity Centers



Policy EQ-3.20

Principles to guide design of activity centers. Four major principles should guide the design of countywide and community activity centers and business development areas (see Figure EQ-15):

Accessibility. Centers attracting large numbers of people must be well-served by transportation lines, especially by public transit. Walkways should connect buildings conveniently with nearby transit stops. Bicycle and walking paths should connect with adjacent areas, to encourage local access by means other than the automobile.

Concentration. Intensive development must be concentrated at relatively few highly accessible locations. Development along 101 or other major roadways must not take the form of a solid, or even intermittently broken, wall of high-density development. Rather, there must be widely spaced, compact, fairly dense centers at carefully selected locations, separated by low-density development and open space. This configuration along Marin's major transportation corridor would support efficient transit, stimulate the creation of accessible jobs, and make it possible to reduce sprawl, in addition to providing a pleasant view from the freeway.

Multiple Uses. Uses that are mutually supported will be encouraged. For example, providing housing in business and commercial areas can have the beneficial effects of making services and jobs readily available to residents, supporting a wide range of commercial activities in the evening and on weekends, and increasing the use of public transit. Activity centers should also provide spaces for formal and informal public gatherings. Reuse and redevelopment of existing community centers should emphasize mixed use.

Amenity. Centers of business and employment must offer an attractive environment, with landscaping, distinctive lighting and outdoor furnishings, and public sitting areas. Public access to waterfront areas should be provided, and historic buildings and sites should be preserved. The visual impact of parking must be minimized by placing it underground where possible and landscaping surface lots.

Views of important natural and man-made features will be preserved and enhanced.

Policy EQ-3.21

Scale of Development. Development of new residential structures should be in scale with environmental constraints such as steep slopes and the design character of the existing neighborhood.

D. OPEN SPACE AND RECREATION

Objective EQ-4. Open Space and Recreation. To establish criteria for the preservation of open space in each of the County's environmental corridors and to supply adequate recreational opportunities.

1. General Policies

Policy EQ-4.1

Provision of facilities. Adequate parks, recreation facilities, and open space shall be provided. Appropriate public access shall be established.

Program EQ-4.1a

Open Space Acquisition. The acquisition techniques mainly involve use of governmental fiscal resources including trade offs for tax reductions. The following are means of implementing the recommendations set forth in this part of the Countywide Plan:

Outright purchase (full fee);

Installment purchase (no title change until last payment);

Purchase in advance of landbank, leaseback or resell a portion as surplus;

Excess condemnation with road, school, flood district, etc.;

Purchase option to buy in future (first right of refusal);

Purchase right of entry plus floating trail easement;

Easement partial purchase (development rights) for specific limited use;

Require open space dedication as conditional development approval;

Trade or transfer of lands with other public/private bodies;

Long term lease (no purchase);

Gifts and voluntary land donations;

Estate settlement, life estate, or in lieu of back taxes;

By private or semi-public non-profit land trust;

Voluntary agreements to permit scenic, recreational uses;

Tax reduction contracts, agreements and write-offs.

Program EQ-4.1b

Transfer of Development Rights to preserve open space. The Marin County Open Space District, National Park Service, State Department of Parks and Recreation, cities, and special districts have acquired much of the land identified as open space in the Plan, using a variety of these techniques. Another approach recommended by the Countywide Plan to secure open space is to consider a program which would enable the development rights on lands identified as open space to be transferred to areas designated as high intensity centers. If this approach proves feasible and is authorized by law, it should be applied only in designated areas which meet Countywide Plan standards for density increases. (see Community Development Section.) The policy should not be applied wholesale throughout the City-Centered Corridor. Specific ratios of amounts or dollar values of open space to density bonuses to be allowed will have to be worked out. It should be possible for a developer to transfer development rights from selective open space areas in any part of the county, not just in the immediate community where a project is proposed.

Other methods for securing open space include cooperative purchase arrangements with local communities, contributions from individual owners and private organizations, open space dedications of areas being developed simultaneously, scenic easements, and open space contracts similar to agricultural preserves under the Williamson Act.

When a public agency is unable to purchase or otherwise permanently secure an area identified for open space, a reasonable use must be permitted under zoning and other regulations. This might be, if the site is suitable, low density residential with provision for clustering to preserve maximum open space.

Program EQ-4.1c

Regulation. Regulation can also be used to achieve the environmental policies of the Plan. The regulation list involves the use of governmental powers, principally police powers like zoning to achieve public benefits in the private development of land, in areas of special environmental concern such as:

Natural hazards

geologic risk zones (fault, bay mud, landslide)

flooding risk zones (floodplain, stream buffer)

fire risk zones (grass, dry brush, dead-end canyons)

Noise and flight path safety zones (airport, freeway)

Special recreation-visitor destination facilities (golf courses, hunting preserves, special event areas, etc.)

Agricultural and rural zones

Historic preservation areas (including archaeological sites)

Marine and wildlife resource conservation reserves

View protection zones

The visual or ecological importance of the area in the county will have significance.

Local contributions in cash, land areas, or land use regulations will be considered but are not essential.

Projects which are contiguous and which will extend their usefulness to existing open space preserved areas are important.

Attractive purchase considerations and conditions will be significant.

Adoption of the Open Space Element of the Countywide Plan by the jurisdiction involved will be significant, but not mandatory.

2. City-Centered Corridor Program

Program EQ-4.5a Securing of open space to assure preservation. Because development pressures are strong, open space in the City-Centered Corridor has been and should continue to be secured (by purchase and other means) by the County Open Space District or other public agency in order to assure preservation. The acquisition of remaining targeted for open space should be pursued as fast as funds become available. The County has zoned remaining privately owned land in the unincorporated area to a low-density planned district category, to assure that environmental values are preserved when development takes place.

Program EQ-4.5b Community Separators. These ridge and upland greenbelts separate and beautify Marin's communities. Some include hiking, biking, or horseback riding trails.

1. Wolfback Ridge to Tennessee Valley, west of Highway 101, around to Oakwood Valley, preserves Marin's southern gateway. It connects the Golden Gate National Recreation Area with Sausalito and Marin City. Most of this area has been acquired as part of the GGNRA.

2. Ridge above Tamalpais Valley, along Panoramic from Tennessee Valley westward, includes trail links with Mount Tamalpais State Park. Portions are included in the GGNRA.
3. Tiburon Peninsula Ridge includes trails to several points along the bay. The Town of Tiburon has acquired portions of this ridge.
4. Northridge is one of the most important community separators still remaining in Marin, connecting Mill Valley, Corte Madera, and Larkspur with the Marin Municipal Water District lands to the west. Most of the ridge has been acquired through the joint efforts of the Open Space District, the Cities, and private organizations.
5. Rim of the Corte Madera Creek Watershed connects the Upper Ross Valley communities with the Marin Municipal Water District lands to the west. Most of the ridge has been acquired through joint efforts of the Open Space District, the cities, and private organizations.
6. Southern Heights Ridge, dividing San Rafael and the Ross Valley, has already experience extensive development. However, this is an important community backdrop and as much of the area as possible should be retained in a greenbelt through scenic easements.
7. San Pedro Peninsula Hills provides a backdrop for the Civic Center and offers panoramic views of the bay region. Most of this ridge has been acquired by the State, the Open Space District, the City of San Rafael, and local residents.
8. San Rafael-Sleepy Hollow Divide is an important separator where housing has already begun to intrude. There is extensive open space remaining in the western part, portions of which have been acquired by the Open Space District.
9. To the east the remaining San Rafael-Sleepy Hollow Divide ridge including a trail extending from the Civic Center to Loma Alta should be preserved through easements and other methods.

Table EQ-7. Open Space Areas in the City-Centered Corridor

Area	1982 Plan Target Areas	Open Space Acres Acquired	% of Target Acquired	Remaining Target Acreage for 2005
Community Separators				
1. Wolfback Ridge	820	182.94	22	637.06
2. Tamalpais Ridge	640	96.53	15	543.47
3. Tiburon Ridge	1,740	833.82	48	906.18
4. Northridge	1,120	1,004.20	90	115.80
5. Corte Madera Watershed	1,750	1,408.00	80	342.00
6. Southern Heights Ridge	0	98.95	---	0.00
7. San Pedro Peninsula Hills	1,860	1,964.80	106	0.00
8. San Rafael/Sleepy Hollow Divide	3,890	1,119.70	29	2,770.30
9. Civic Center	130	129.51	100	0.49
10. Big Rock Ridge	6,400	4,512.00	71	1888.00
11. St. Vincent's	1,070	262.69	25	807.31
12. Pinheiro Ridge	970	108.90	11	861.10
13. Mount Burdell	1,400	1,452.80	104	0.00
<i>Subtotal</i>	21,790	13,174.84	60 %	8,871.71
Water Edge Lowlands				
14. Richardson Bay	330	132.50	40	197.50
15. East Side of Tiburon Peninsula	80	72.10	90	7.90
16. Corte Madera Bayfront	390	416.41	107	0.00
17. San Rafael Bay	380	82.48	22	297.52
18. San Pedro Peninsula Shoreline	680	91.48	13	588.52
19. San Pablo Bayfront	1,850	788.40	43	1,061.60
20. Novato Creek/Black Point	790	1807.60	138	0.00
21. Petaluma River	950	195.73	21	754.27
<i>Subtotal</i>	5,450	2,866.70	53 %	2,907.31
Stream and Creek Reserves				
22. Mill Valley Area Creeks	90	0.00	0	90.00
23. Corte Madera Creek	120	0.00	0	120.00
24. Las Gallinas Creek	110	0.00	0	110.00
25. Miller Creek, 101 to Big Rock	50	0.00	0	50.00
26. Arroyo San Jose	20	0.00	0	20.00
27. Novato and Warner Creeks	90	0.00	0	90.00
<i>Subtotal</i>	480	0.00	0	480.00
Safety Zones				
28. Gness Field	770	0.00	0	770.00
Total in City-Centered Corridor	28,490	16,041.54	56 %	13,029.02

10. Big Rock Ridge separates the Novato basin from the Lucas Valley-Marinwood communities; extends to Stafford Lake Park and borders the College of Marin Indian Valley campus. Portions have been acquired by the Open Space District and local residents.
11. Hills East of 101 Near St. Vincent's School. These two open areas provide a continuous greenbelt system between Big Rock Ridge and San Pablo Bay. This space will separate new development in the Silveira-St. Vincent's area from other development north and south.
12. Pinheiro Ridge functions as a ridge and upland greenbelt/community separator between the Atherton community and the lands including and surrounding Gness Field.
13. Mount Burdell, the major landmark of North Marin, has been acquired by the Open Space District as the major component of a permanent scenic reserve which should extend from Gness Field to Stafford Lake. Bicycle, hiking, and riding trails connecting with adjacent communities have been included. The nearby Olompali Ranch is now a State park.

Program EQ-4.5c

Water Edge Lowlands

14. Richardson Bay. These sections of shoreline should be acquired by County or city agencies for recreational purposes or resource protection: Manzanita Green, connecting Marin City with the bay, could provide a shoreline park for Marin City; a small salt marsh, one of the most valuable still remaining in the bay; the head of Richardson Bay, where Mill Valley intends to develop a small boat harbor or other recreation facilities, and Strawberry Cove. Bothin Marsh and most of the Tiburon shoreline have been acquired.
15. East Side of Tiburon Peninsula, now partially developed, from Keil Cove northward adjacent to Tiburon Ridge, should include expansion space for Paradise County park and a trail.

16. Corte Madera Bay Front. Existing marshes should be preserved, and the San Quentin site should be considered for public recreation as well as other uses if it ceases to operate as a prison. The Corte Madera Ecological Reserve has been established in this area.
17. San Rafael Bay. Land along the bay shore, the highest density residential area in the county, should be permanently secured for open space. The city has been actively acquiring a band of open space along the Bay.
18. San Pedro Peninsula Shoreline should be acquired for water-oriented recreation from McNear's Beach north to Las Gallinas Creek. Major portions have been acquired as part of China Camp State Park.
19. San Pablo Bay Front, Las Gallinas Creek to Novato Creek, should be kept open to preserve the tidelands. The creekside should be kept free of developments which would contribute to siltation and loss of navigational use in the stream channels. This area contains the County's McInnis Park.
20. Novato Creek to Black Point, a valuable flood ponding area, includes large areas which have been acquired for this purpose.
21. Petaluma River. Natural marshes, river bank areas and wildlife refuges should be preserved, in cooperation with Sonoma County. The State and Open Space District have acquired significant wetland areas between Rush Creek and Basalt creek. A Coastal Conservancy grant will enable the County to prepare an enhancement plan for wetland and habitat.

Program EQ-4.5d

Stream and Creek Reserves. Most stream buffers in the City-Centered Corridor have already been encroached upon by development so that in many cases it is no longer possible to attain the desirable buffer zone on each side. In any case, strict controls and high environmental standards must be maintained in these zones.

22. Mill Valley Area Creeks. Local jurisdictions should provide adjacent parks and regulate development to protect streamside vegetation along Arroyo Corte Madera del Presidio, Old Mill, Cascade, Homestead, and Coyote Creeks.
23. Corte Madera Creek. Although much of this creek has already been lined with concrete, a landscaped bicycle path now extends from the Larkspur ferry terminal through the Ross Valley.
24. Las Gallinas Creek. The north edge should remain open and landscaped, providing a connection between the Civic Center and McInnis Park.
25. Miller Creek from 101 to Big Rock should provide a continuous natural strip through Marinwood and Lucas Valley. This should be assured as development plans are reviewed.
26. Arroyo San Jose through Rafael Village and the Novato Golf and Country Club area should also be kept open through regulation.
27. Novato and Warner Creeks, among the few remaining natural streams in East Marin, should be kept as reserves as far to the west as possible, through acquisition of streamside development rights.

3. Inland Rural Corridor Program

Policy EQ-4.6

Preservation of open lands. A combination of agricultural zoning and contracts with landowners will continue to be used to preserve open land in the Inland Rural Corridor. In addition, government agencies and local groups will undertake special land management programs to protect streams, grasslands, and forests. Some acquisition by public agencies is needed to expand public parks and watershed.

Program EQ-4.6a

Public Open Space. Marin Municipal Water District Lands include hiking, riding, and bicycle trails and limited recreation facilities such as scout camps, in addition to their primary function of providing watershed reserves and reservoirs. This area has been expanded to the north around the Kent Lake Watershed to include the Carson Creek Drainage.

An area north of Samuel P. Taylor State Park including Devil's Gulch, has been acquired by the federal government as part of a continuous park strip from the Golden Gate.

Nicasio Reservoir area offers excellent potential for recreation uses, however, these uses may be limited due to the sensitivity of the watershed.

The County operates a park in the Stafford Lake area, which includes the lake owned by the North Marin Water District.

Program EQ-4.6b

Agricultural Areas. Agricultural preserve contracts, zoning to a prevailing density of 60 acres, and implementation of Transfer of Development Rights programs should be the primary means used to preserve agricultural activities in these areas. Some limited recreational use, such as dude ranches, campgrounds, and hostels for bicycle travelers, should be permitted, to allow for reasonable use of private lands.

Program EQ-4.6c
(Program A-1.1c)

Agricultural Zoning Study and Code Revisions. The County shall review and prepare comprehensive revisions to its primary agricultural zoning regulations for the purpose of creating a uniform approach to the preservation of agriculture. Such changes should include mandatory clustering provisions, appropriate development standards, and inclusion of complementary non-agricultural uses.

Program EQ-4.6d
(Program A-1.5a)

Agricultural Easements Program. The County shall continue its programs to obtain agricultural easements or to assist in the purchase of such easements by an appropriate agency or non-profit land trust.

Program EQ-4.6e

Conservation Areas. Stream courses in the Inland Rural Corridor are especially prone to environmental damage. They will be carefully protected from pollution, bank erosion, and destruction of native plants, animals, and fish in reviews of any proposed activities affecting watersheds. These activities include agricultural uses, such as damming for holding ponds, pumping water, and disposing of cattle waste.

A conservation zone with a stream buffer extending 100 feet on either side of the high water mark for major streams is proposed. Development and use will be carefully controlled in accordance with environmental protection policies for conservation zones.

4. Coastal Recreation Corridor Program

Policy EQ-4.7

Identification of open space preservation areas. More detailed policies are included in the Marin County Local Coastal Program adopted by the Board of Supervisors and the Coastal Commission.

Program EQ-4.7a

Public Open Space

Golden Gate National Recreation Area. The National Park Service has established this major national park, generally including the southern tip of the county, extending east to the boundary of the City-Centered Corridor and north to Muir Beach and Taylor Park; and the Olema Valley, north to Sir Francis Drake Boulevard, excluding the town of Olema. This configuration assures a continuous corridor of public land for recreation and open space along Marin's southern coast and adjacent to Point Reyes National Seashore. The Countywide Plan recommends that the area be retained in its natural state to the greatest extent possible, and that recreational uses be low density.

Mount Tamalpais-Stinson Beach State Parks. These state park lands surrounding Muir Woods National Monument should continue to be used for fairly intensive public recreation.

Point Reyes National Seashore and Tomales Bay State Park. The National Park Service has completed land acquisition and is now developing facilities at Point Reyes. The Countywide Plan recommends that the National Seashore be retained in its natural condition to the greatest extent possible, and that it provide primarily low-intensity recreational uses such as hiking and wilderness education. High-intensity uses (picnicking, sports activities) should be provided only in areas that can resist environmental damage, such as beaches. These areas should be served by convenient public transportation, but ecologically fragile areas should remain relatively inaccessible. It is hoped that the National Park Service will establish interpretive resource centers before opening up environmentally sensitive areas and that it will plan and work toward the establishment of an internal transit system as soon as possible.

Bolinas Lagoon is a County park, primarily as a reserve in a fragile natural environment. A limited amount of public facilities will be provided over time with the impact monitored through a research program by the County Parks, Open Space and Cultural Commission.

Program EQ-4.7b

Agricultural Areas. Agricultural zoning and contracts should be used to help preserve and encourage the retention of these activities and preserve portions of this corridor in their present dairying and ranching uses, as recommended for the Inland Rural Corridor. The Marin County Local Coastal Program designates these lands as Agricultural Production Zones, to strengthen and encourage exclusive agricultural use.

Land along the San Andreas Rift Zone is subject to severe impacts from earthquakes. No concentrated or hazardous uses will be permitted here, including schools, other institutions, high-density housing, or reservoirs. The inclusion of much of this zone in the Golden Gate National Recreation Area will prevent development along a large extent of the fault.

**Table EQ-8. Existing and Proposed Open Space Areas
in the Inland Rural Corridor**

	1973 & 1982 Target Acres	Acres Acquired as of 1988	% of Target Acquired	Remaining Target Acreage for 2005
Public Open Space				
Marin Municipal Water District	2,450	18,573	758	0
Samuel P. Taylor State Park	1,150	2,502	218	0
Nicasio Reservoir Park	1,850	1,683	91	0
Stafford Lake Park	2,920	5,088	174	0
Olompali State Park	0	678		0
Soulajule (MMWD)	0	192		0
<i>Subtotal</i>	8,370	28,717	342%	0
Conservation Zones: Stream Course Buffers				
Estero Americano	530	0	0	530
Estero San Antonio & San Antonio Creek	910	0	0	910
Keys Creek	140	0	0	140
Chileno Creek, Laguna Lake, & San Antonio Creek	1,600	0	0	1,600
Walker Creek	1,000	0	0	1,000
Salmon Creek & Arroyo Sausal	870	0	0	870
Novato Creek	300	0	0	300
Halleck Creek	620	0	0	620
Nicasio Creek	610	0	0	610
Lagunitas Creek	400	0	0	400
San Geronimo Creek	450	0	0	450
<i>Subtotal</i>	7,430	0	0	7,430
Total	15,800	28,717	342%	7,430

* Not Including Agricultural Areas

Note: Acreage in this table has been rounded.

**Table EQ-9. Existing and Proposed Additional Open Space*
in the Coastal Recreation Corridor**

	1973 & 1982 Target Acres	Acres Acquired as of 1988	% of Target Acquired	Remaining Target Acreage for 2005
Public Open Space				
Golden Gate National Recreation Area	13,910	25,587	184%	0
Conservation Zones				
Bolinas Bay Cliffs, Audubon Canyon	3,470	1,050	30%	2,420
Duxbury Reef	1,160	1,160	100%	0
Cliffs at Bodega, Mouth of Estero San Antonio	2,010	0	0%	2,010
Tomales Bay Front, Walker Creek Mouth	4,570	0	0%	4,570
San Andreas Rift Zone	3,140	3,140	100%	0
Olema Creek	140	140	100%	0
<i>Subtotal</i>	14,490	5,490	38%	9,000
Total	28,400	31,077	109%	9,000

* Not Including Agricultural Areas

Table EQ-10. Types of Recreation Facilities in Marin County

Responsible Agency	City-Centered Corridor	Inland Rural Corridor	Coastal Recreation
Federal		Muir Woods National Monument Golden Gate National Recreation Area: beaches, camping trails, outdoor education, wilderness preservation, picnicking.	Point Reyes National Seashore
State	Angel Island Park: boating, trails, picnicking, beaches, outdoor education. China Camp: camping, trails, picnicking.	Samuel P. Taylor and Mt. Tam Parks: camping, trails, picnicking,. Olompali Park cultural history; hiking.	Stinson Beach, Tomales Bay parks: beaches, picnicking
County Parks Open Space & Cultural Commission	Beach parks, boat launch, upland parks, golf, tot lots, bike paths, tennis, swimming pool, wetland and botanical reserves, trails.	Trails, stream reserves, reservoir parks: fishing, picnicking.	Beach parks, marinas, trails, wetland botanical reserves.
County Open Space District	Mt. Burdell, Northridge, Terra Linda/Sleepy Hollow Divide, Deer Island, San Pedro Mtn., Big Rock Ridge - Cascade Canyon. Open Space Reserves with low impact recreation use.	Roy's Redwoods, Maurice Thorne, Pine Mountain, Indian Tree, Loma Alta Preserves: low impact recreational uses.	Bolinas Lagoon: low impact water related uses.
Water District Lands	Trails, fishing, picnicking, bike paths.	Watershed reserves: camping.	
Local: Cities and Recreation Districts.	Community parks, playgrounds, tot lots, swimming pools, indoor facilities, athletic fields, golf, tennis, bike paths, historic landmarks.		
Commercial Firms	Boating, swimming, golf, sports arenas, indoor recreational, tourist facilities, stables.	Tourist facilities, stables.	Tourist facilities, boating, stables.

Objective EQ-5. Plant and Wildlife Preservation. To preserve and protect and enhance existing species and habitat diversity in Marin County.

Policy EQ-5.1 **Species Preservation in the Environmental Review Process.** Environmental review of development applications shall consider the impact of the proposed development on species and habitat diversity. Environmental review documents should propose mitigation measures for ensuring the protection of the habitat and species therein.

Program EQ-5.1a **Species and Habitat Protection.** All project permits, including development, grading, and tidelands permits, shall include conditions or mitigation measures to ensure the continued health and survival of the habitat and the plants and wildlife to the greatest extent possible.

Program EQ-5.1b **Wildlife Corridors.** Development permits shall include conditions or mitigation measures to ensure that corridors for wildlife movement and dispersal are not destroyed or altered in such a way as to destroy or significantly diminish the use of the site as a corridor for animal movement and dispersal.

Program EQ-5.1c **Edge Habitats.** Development applications shall be conditioned or modified to ensure that edge habitats are not destroyed or altered in such a way as to destroy or significantly diminish the diversity of species using the site.

Policy EQ-5.2 **Protection of Special Status Species.** Development shall be restricted or modified in areas which contain special status species and migratory species of the Pacific Flyway and/or significant natural areas, wetlands, riparian habitats and freshwater habitats to ensure the continued health and survival of these species and areas.

Program EQ-5.2a **Special Status Species and Significant Natural Areas.** Development permits shall include conditions or mitigation measures to ensure the continued health and survival of special status species, migratory species of the Pacific Flyway and significant natural areas, wetlands, riparian habitats and freshwater habitats.

Program EQ-5.2b

Species Protection Resource Center. The County Planning Department should establish and maintain a Species Protection Resource Center in order to accurately assess the potential impacts of proposed development on species and habitat diversity. The Resource Center shall contain: 1) All up-to-date information on verified sightings of special-status species and significant natural areas as compiled by the California Department of Fish and Game, Non-Game Heritage Division; 2) All reports and recovery programs for special-status species and significant natural areas; 3) All up-to-date information from the United States Fish and Wildlife Service, including sightings and inventories of the migratory species of the Pacific Flyway; and (4) Reports, siting and recovery programs from reliable, local sources such as the Point Reyes Bird Observatory and the Marin Audubon Society.

**COMMUNITY DEVELOPMENT
ELEMENT**

COMMUNITY DEVELOPMENT ELEMENT

TABLE OF CONTENTS

I. INTRODUCTION	1
A. LEGAL AUTHORITY	1
B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS.....	2
C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS	3
D. ORGANIZATION OF THIS ELEMENT	3
II. POLICY HISTORY AND PLANNING CONTEXT	4
A. THE COUNTYWIDE PLAN -- 1973 AND 1982.....	4
III. COUNTYWIDE PLANNING APPROACH.....	7
III. COUNTYWIDE OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS	8
A. COUNTYWIDE CHARACTER AND DEVELOPMENT PATTERN	8
B. COUNTYWIDE PLANNING FRAMEWORK AND GROWTH MANAGEMENT	16
C. LAND USE CATEGORIES, - DENSITIES AND INTENSITIES	21
IV. PLANS FOR THE SEVEN PLANNING AREAS: OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS	31
A. NOVATO PLANNING AREA - PA #1	31
B. LAS GALLINAS VALLEY PLANNING AREA - PA #2	37
C. SAN RAFAEL BASIN PLANNING AREA - PA #3	42
D. UPPER ROSS VALLEY PLANNING AREA - PA #4	46
E. LOWER ROSS VALLEY PLANNING AREA - PA #5.....	50
F. RICHARDSON BAY PLANNING AREA - PA #6.....	54
G. WEST MARIN - PA #7	59

LIST OF TABLES

CD-1. Land Use and Demographic Data - Marin County	8
CD-2. Land Use and Demographic Data - Novato Planning Area	31
CD-3. Land Use and Demographic Data - Las Gallinas Planning Area	37
CD-4. Land Use and Demographic Data - San Rafael Basin Planning Area	42
CD-5. Land Use and Demographic Data - Upper Ross Valley Planning Area	46
CD-6. Land Use and Demographic Data - Lower Ross Valley Planning Area	50
CD-7. Land Use and Demographic Data - Richardson Bay Planning Area	54
CD-8. Land Use and Demographic Data - West Marin Planning Area	59

LIST OF FIGURES

CD-1. Countywide Activity Centers and Community Activity Centers	18
Land Use Policy Maps	69
Existing Land Use Policy Map Index	71
Novato Planning Area - PA #1	73
Las Gallinas Planning Area - PA #2	81
San Rafael Basin Planning Area - PA #3	89
Upper Ross Valley Planning Area - PA #4	95
Upper Ross Valley Planning Area - PA #5	99
Richardson Bay Planning Area - PA #6	105
West Marin - PA #7	117

I. INTRODUCTION

The Community Development Element provides information on population, housing projections, and economic characteristics and covers policy issues related to countywide character, development patterns, and land use. Development policies address both Marin County as a whole and specific planning areas, with special detail provided for unincorporated areas under County jurisdiction. This element links the natural environment, health and safety, and community development concerns of the Countywide Plan in a series of land use policies and designations.

Key issues covered in this element include:

- Choices about how to use the remaining land in the City-Centered Corridor;

- Maintaining a balance between jobs, housing, retail development, and open space; and

- The timing and funding of infrastructure to serve projected development.

A. LEGAL AUTHORITY

The Community Development Element of the Countywide Plan encompasses most of the requirements of State law for a land use element. Other required components of land use elements are addressed in other elements of the Plan as shown below. Since 1955, a land use element has been required as part of a local general plan. The following citation from the State Government Code Section 65302 (a) summarizes the intent and requirements of the land use element:

A land use element which designates the proposed general distribution and general location and extent of uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall also identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to such areas....

The land use element must establish a pattern for land use and set clear standards for the density of population and the intensity of development in the unincorporated portion of the County for each of the proposed land uses. Some of the issues required to be addressed in a land use element are covered elsewhere in the Marin Countywide Plan because they are more appropriately addressed in those sections.

The Countywide Plan is the foremost plan for assuring consistency with regional plans, such as 101 Corridor planning, and the Association of Bay Area Governments' Regional Plan for the entire Bay Area.

B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Community Development Element is related to other elements, which address community development and land use issues in the following manner:

Environmental Hazards Element: Provides inventory of lands subject to environmental hazards, such as flooding, fire, seismic events, and landslides.

Environmental Quality Element: Discusses areas identified for natural resource preservation, such as water resources, vegetation, soil resources, mineral resources, fish and wildlife, and rare and endangered plant and animal species. Identifies lands which are open space acquisition priorities. Offers design policies for the built environment.

Park and Recreation Element: Discusses location and type of park facilities in the county, park needs, and standards for parkland dedication.

Agricultural Element: Supports preservation of land as an agricultural resource through policies that maintain and enhance agricultural operations.

Housing Element: Identifies land available to provide housing at all income levels. Identifies housing needs. Includes policies and programs for producing housing to meet needs.

Community Facilities Element: Discusses location of community facilities, provision of services, spheres of influence, urban service areas, and annexation policies.

Transportation Element: Addresses the need for a transportation, highway and road system to serve the existing and projected land uses and densities identified in the Community Development Element.

C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

The element is based on the findings in four Community Development technical reports:

- #1: Marin County Land Use Databases
- #2: Existing Land Use and Demographic Conditions
- #3: Land Use Alternatives for Marin County
- #4: The Marin County Economy

D. ORGANIZATION OF THIS ELEMENT - POLICY FRAMEWORK

This element updates the Community Development Element and Plans for Planning Areas sections of the 1982 Countywide Plan.

The Element addresses Countywide issues as well as specific planning area issues. The following graphic illustrates this policy framework:

Community Development Element Policy Framework

Countywide Character and Development Pattern: Defining overall development goals for the County and strategies for the location of development, environmental corridors, land use and economic development and energy conservation.

Countywide Planning Framework and Growth Management: Providing a framework for coordinated planning among all jurisdictions and establishing land use types (open space, residential, commercial, etc.) and standards for the density and intensity of development for unincorporated areas.

Plans for the Seven Planning Areas: Providing detailed objectives and policies for West Marin and the six planning areas located within the eastern urban corridor of the County (West Marin and the unincorporated portions of each planning area are the focus of greatest detail).

Key Issues which the Community Development Element addresses include the following:

Choices about how to use the remaining land in the City-Centered Corridor.

Maintaining a balance between jobs, housing, retail development, and open space.

II. POLICY HISTORY AND PLANNING CONTEXT

A. THE COUNTYWIDE PLAN - 1973 AND 1982

The 1973 Countywide Plan was a turning point for the County. The 1973 plan established environmental quality as a primary concern in decision-making and provided a base for continued cooperative planning between the cities and the county. The 1973 Plan called for a balance of housing, transportation, economic development, and resource protection.

The 1982 Marin Countywide Plan proposed actions by city and county governments, private organizations, and citizens to affirm the goals set in the 1973 plan and to meet new needs. Major proposals related to the 1982 Plan Community Development Element included:

Urban Service Area policies that encourage new development to occur in cities, and policies to encourage the annexation of urbanized unincorporated areas;

Land use policies to encourage balanced communities with higher intensity, mixed uses in built-up areas with services, consistent with local plans;

A transportation system that emphasizes traffic management rather than capital investments and that includes a High-Occupancy Vehicle Lane along Route 101 to serve central and north Marin;

More specific conservation and development standards to protect bayside and streamside areas;

Policies and actions to reduce Marin's use of nonrenewable energy by the year 2000.

The 1982 plan was an inter-jurisdictional plan, resulting from a cooperative effort between the 11 cities and the county to establish an overall framework and set of goals for countywide development.

The people of Marin and their city and county officials stated ambitious objectives in the 1973 and 1982 plans, including: (1) open space purchases; (2) growth management; (3) agricultural preservation; (4) land use and design controls; and (5) improved transbay bus service. However, some transportation objectives have not been achieved and important new issues have arisen since the 1973 and 1982 plans were adopted. Three sales taxes to pay for transit and highway improvements have failed to be passed by Marin voters. For this reason, provision of transportation improvements identified in the plan has not kept pace with job and housing development. The passage of Proposition 13 reduced property tax revenues, encouraged the cities to compete for tax-generating retail development, and placed a premium on the efficient use of scarce public resources.

Current key issues - open space protection, transportation, affordable housing and fiscal limits - are closely tied to each other and to the goals and policies of the Community Development Element. Solving these problems is essential for continued progress toward attainment of the basic environmental, social, and economic goals of the 1973 and 1982 plans.

The purposes of the current update are to:

- Take into account the environmental, social, and economic changes that have occurred since 1973 and 1982;

- Make appropriate recommendations for the next two decades (1990-2010);

- Meet the latest State law requirements for general plans, especially for the unincorporated areas of the Marin County;

- Continue to coordinate with recent updates of many city plans and projections for special districts in planning community services and facilities;

- Establish a framework for implementation programs to be carried out jointly by the cities and the County;

- Restate a vision for Marin's future.

III. COUNTYWIDE PLANNING APPROACH

The geographic scope of the Marin Countywide Plan covers 520 square miles of land area and 86 square miles of water area extending north of San Francisco along San Francisco Bay and the Pacific Ocean. The County encompasses many governmental agencies including eleven cities and the County, which are general purpose governmental entities, and a number of single-purpose service districts. Coordinated planning and provision of services between all of these jurisdictions, as well as with other regional, State and Federal agencies, are addressed in the Countywide Plan.

The Community Development Element of this plan plays a central role in bringing together all land use issues, constraints and opportunities, balanced with the numerous needs and desires of the county community as a whole. The Community Development Element establishes a pattern for land use and sets out clear standards for the density of population and the intensity of development for each of the proposed land uses. The Element also establishes a direct tie between the timing, amount, type and location of development with the traffic, service, and infrastructure demands such development will generate. Policies on these issues are located in the Community Facilities and Transportation Elements.

The Community Development Element focuses on past, present, and future development issues that will affect Marin County's quality of life. Review of existing conditions, trends and projections provides a starting point for determining appropriate land use densities and intensities. The City-Centered Corridor is designated to contain more urban, densely populated development than the Inland Rural Corridor and Coastal Recreation Corridor areas of the County. The analysis focuses on the seven County planning areas:

County Planning Areas

City-Centered Corridor

- PA 1 Novato
- PA 2 Las Gallinas Valley
- PA 3 San Rafael Basin
- PA 4 Upper Ross Valley
- PA 5 Lower Ross Valley
- PA 6 Richardson Bay

Inland-Rural Corridor & Coastal-Recreation Corridor

- PA 7 West Marin

Marin County's city-centered concept of development is consistent with the Association of Bay Area Governments' Regional Plan for the entire Bay Area, adopted almost 15 years ago to promote compact growth for cost-efficient provision public services and to retain open space resources as community separators.

Marin County's position on regional conditions such as traffic on Highway 101 and market demand for land are also covered by the Countywide Plan. Marin served historically as a bedroom community of commuters to jobs in San Francisco. As commuters moved north to take advantage of lower housing costs in the growing cities of Petaluma, Rohnert Park, and Santa Rosa, traffic through the county increased. By the early 1980s, however, job development in Marin began attracting increasing numbers of local commuters and commuters from Sonoma although the number of commuters to San Francisco did not increase significantly. The interrelationship of jobs, housing, and transportation requires ongoing coordination between Marin and Sonoma Counties.

III. COUNTYWIDE OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

A. COUNTYWIDE CHARACTER AND DEVELOPMENT PATTERN

Table CD-1. Land Use and Demographic Data for Marin County

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	222,592 ¹	230,096 ¹	259,844 ³
Households	88,723 ²	95,006 ¹	115,277 ³
Average Household Size	2.51	2.42	2.25
Employed Residents	118,560 ²	132,044 ³	155,264 ³
Jobs	76,502 ²	104,840 ³	145,433 ³
Employed Residents/Jobs	1.52	1.26	1.07
Land Use			
Housing Units		99,757 ¹	119,943 ³
Commercial/Industrial ft ²		29,570,756 ³	44,444,965 ³

¹ U.S. Bureau of the Census

² ABAG Projections 1990

³ Marin County Planning Department

NOTE: The Countywide Plan does not include projections which estimate the time by which a certain level of development is projected to occur. Instead tables of statistics are presented for the county as a whole and for each of seven planning areas, which identify three benchmarks by which to measure trends: 1) 1980 U.S. Census counts of population, households, employed residents and jobs; 2) population counts from the 1990 census and estimates for 1990 based on land use data for the county and the cities, collected by the County Planning Department; and, 3) a projection of development which could occur if land vacant in 1990 were developed according to the designations of city and county general plans. The Association of Bay Area Governments prepares projections every two years for all the Bay Area counties, which estimate population and job growth at five year intervals. The buildout projection in the Countywide Plan is roughly equivalent to ABAG's projections for the year 2005.

Population/Demographics

Population growth in the county between 1980 and 1990 was low, with 7,500 people and 6,200 households added to the county's population. County population could increase to nearly 260,000 in the future if the land designated for residential development were developed and occupied. Household size is expected to continue decreasing in the future. The decrease primarily reflects the aging of Marin County's population.

Job Development

The number of county residents holding jobs and the number of jobs in the county both increased during the 1980s. In 1980, Marin had 1.52 employed residents for every job in the county. By 1990, Marin had 1.26 employed residents for every job in the county. When the number of employed residents per job nears 1.0, more employed residents could be working on jobs in the county. However, if job salaries do not match the cost of living in Marin, Marin residents will need to commute out of the county to higher paying jobs, while workers from other counties will commute into Marin.

Commercial/Industrial Development

The increase in jobs in the county will be made possible by the development of land designated for commercial and industrial activities. Approximately 14 million square feet are designated for development, mainly in Novato and East San Rafael. Hamilton Air Force Base in Novato is the largest single site available for commercial and industrial development. Statistical summaries of planning areas indicate how commercial and industrial development potential is distributed throughout the county.

Housing

There is potential for about 20,000 new housing units countywide, both in single-family and multi-family developments. The greatest potential for housing development is in the Richardson Bay, Las Gallinas Valley and Novato planning areas, as shown in the statistical summaries for the planning areas.

Objective CD-1. Environmental Corridors. To establish a broad management framework derived from the County's environmental zones as a basis for local policies and regulation, consistent with the Environmental Quality Element (Objective EQ-1).

Policy CD-1.1
(Policy EQ-1.1)

Land Use in the City-Centered Corridor. Urban development will be concentrated in the City-Centered Corridor so that the rest of the county can remain as open as possible, in accordance with the Association of Bay Area Governments' Regional Plan.

Policy CD-1.2
(Policy EQ-1.2)

Land Use in the Inland Rural Corridor. Agricultural land uses will be emphasized in the Inland Rural Corridor along with other uses that are compatible with agriculture, such as resource and habitat preservation.

Policy CD-1.3
(Policy EQ-1.3)

Land Use in the Coastal Recreation Corridor. Open space, recreational, and agricultural land uses will be emphasized in the Coastal Recreation Corridor along with the preservation of existing coastal communities.

Objective CD-2. Balanced Communities. To create balanced communities which house and employ all income groups and which provide a full range of facilities and services. Residents should have the opportunity to live and work in the same community, and to fulfill shopping, business, recreational, and educational needs within a reasonable distance of their homes.

Policy CD-2.1

Jobs and Housing Mix. The mix of housing size and price in new developments should meet the needs of workers employed in Marin County.

Policy CD-2.2

Location of Housing and Jobs. Housing should be located near jobs, whenever feasible. Economic development which provides jobs for Marin County residents at all income levels should be encouraged, especially in areas of the county with the lowest ratio of jobs to housing, if feasible.

Policy CD-2.3

Location of Development in Coordination with the Transportation System. The location and density of all development should be mutually coordinated with the transportation network and transit systems in order to foster energy conservation and minimize the circulation impacts of new development.

Policy CD-2.4

Location of Commercial and Higher Intensity Residential Development. Commercial and higher intensity residential development should be located in nodes where there is high transit accessibility and service capacity, such as in or near central business districts of cities and towns. Sprawl or continuous strip development along freeway corridors should be discouraged.

Policy CD-2.5

Mixed Residential and Commercial Uses. Housing should be integrated into commercial areas, where appropriate, in order to reduce the need for commuting and automobile use and to expand the amount of land available for residential development.

Program CD-2.5a

Identify Suitable Mixed Use Sites. The eleven cities and the County should encourage the designation and development of sites suitable for mixed use development, such as the integration of housing with existing major retail centers. Conceptual plans or development standards should be established for these sites and appropriate modifications to general plans shall be accomplished.

Policy CD-2.6

Discouraging Development in Natural Resource or Hazard Areas. Development should be discouraged in those areas which have high natural resource values or which pose significant hazards to life or property. Where development is permitted in such areas, the permitted density should be low, and structures should be sited in order to minimize adverse impacts.

Policy CD-2.7

Existing Commercial and Industrial Areas. Existing commercial and industrial areas should be preserved and improved through redevelopment. In particular, traditional downtowns should be enhanced so that they continue to add to a community's identity.

Policy CD-2.8

Retention of Existing Businesses. Areas which would allow for expansion and relocation of existing businesses should be designated, consistent with the ability to provide services and mitigate impacts.

Policy CD-2.9 **Historic Preservation.** Buildings and areas with special and recognized historic, architectural, or aesthetic value should be preserved. New development should be compatible with historically significant buildings and areas.

Objective CD-3. Economic Development. To provide economic development which contributes to the creation of balanced communities where residents have opportunities for employment, shopping, services, and recreation.

Policy CD-3.1 **Types of Economic Development.** Encourage economic development opportunities which provide local employment, reduce the need for County residents to commute, broaden property and sales tax bases, and have the least environmental impacts in terms of air, noise, and water pollution.

Policy CD-3.2 **Diversity of Employment Opportunities.** A diversity of employment opportunities should be available in Marin County in order to provide jobs for residents of all income levels. Diversification will cushion the county's overall economy against a slump in any one sector and against seasonal fluctuations.

Policy CD-3.3 **Appropriate Business Activities.** Business activities that meet the employment needs of Marin residents should be encouraged to locate and remain in Marin County.

Policy CD-3.4 **Location of Employment Opportunities.** Employment should be encouraged to locate in areas with high transit accessibility, public services, housing to meet employee needs, and complementary retail and commercial uses.

Policy CD-3.5 **Live/Work Space and Cottage Industries.** Studios and work space for artists, craftspeople, and other home occupations throughout the county should be encouraged through zoning policies.

Program CD-3.5a **Performance Standards.** Develop performance standards for live/work locations and cottage industries.

Policy CD-3.6 **Coordinated Countywide Approach.** It is essential that local governments and businesses develop a coordinated countywide approach to economic development.

- Program CD-3.6a Maintaining and Providing Information. The County should take a coordinating role in the maintenance and provision of information about development projects in the cities and the county.
- Program CD-3.6b Coordination for Economic Development. Private organizations, such as chambers of commerce, should provide information and coordination on economic development for local government agencies and the private sector.
- Program CD-3.6c Establishment of Economic Development Commission. The County and the cities should consider the establishment of an Economic Development Commission. The purpose of this commission should be to assist in the identification of parcels for business expansion or relocation within Marin County and to facilitate economic development consistent with Countywide Plan policies.
- Policy CD-3.7 Self-Employment and Home Occupations. Self-employment and home occupations should be encouraged through zoning policies and opportunities to develop appropriate work space, where compatible with the character of the particular residential neighborhood.
- Program CD-3.7a Performance Standards. Performance standards for home occupations should be developed.
- Policy CD-3.8 Employment Training. Employment training and vocational education programs should be supported and tailored to the changing needs of employers.
- Objective CD-4. Energy Use. To reduce dependence on non-renewable, imported energy resources.
- Policy CD-4.1 Energy Conservation and Commercial Development. Commercial development should be located, sized, and designed to minimize energy consumption on site and to reduce energy used in travelling to and from other destinations. Commercial centers should provide a variety of services (including park-and-ride facilities for commuters and travelers to regional shopping facilities) that allow energy-efficient and multiple-purpose trips.

Policy CD-4.2

Opportunities for Energy Savings. Opportunities for energy savings that are compatible with other countywide and community goals should be explored and, where possible, should be implemented.

Program CD-4.2a

Review of Planning and Regulatory Documents. Review all planning and regulatory documents to facilitate and promote energy efficiency and renewable energy use, including the following documents:

Countywide Plan and community plans;

Zoning Ordinance, including use permits and variances;

Subdivision Ordinance;

Building Code;

Planned Development Ordinance and Guidelines;

Environmental Impact Review Guidelines;

Other relevant special purpose ordinances;

These documents should be revised, if necessary, to reflect the policies contained in the Element.

Program CD-4.2b

Incorporate Energy Efficiency into Project Review. Incorporate energy efficiency and renewable energy use as criteria for design review, growth management, grant approval review and other local programs that affect energy use.

Policy CD-4.3

Upgrade Energy Efficiency of Existing Structures. The energy efficiency of existing structures should be upgraded.

Program CD-4.3a

Low-Income Weatherization Program. Develop a program to accelerate the weatherization of low-income residences and rental units.

- Program CD-4.3b Summertime Shading of Parking Lots and Streets. Require summertime shading of parking lots and streets in a manner that allows solar access to south walls and roofs of structures and winter heat gain to sidewalks and usable outdoor spaces.
- Policy CD-4.4 **Increase the Energy Efficiency of New Structures.** The energy efficiency of new structures should be increased.
- Program CD-4.4a Implement State Standards. Implement State standards for energy efficiency in new residential and non-residential structures.
- Program CD-4.4b Summertime Shading of Parking Lots and Streets. Require the summertime shading of parking lots and streets in a manner that provides solar access to roof tops and south walls of structures and allows winter heat gain onto sidewalks and other usable outdoor space.
- Policy CD-4.5 **Use of Renewable Energy.** Solar energy and other renewable energy sources should be used in all structures to the extent feasible.
- Program CD-4.5a Eliminate Barriers to Solar Energy. Evaluate local regulations to eliminate barriers to conservation and solar energy and adopt regulatory process revisions that will result in the use of passive energy design in new and existing structures.
- Program CD-4.5b Solar Access Protection. Establish development standards which provide for the protection of solar access in new and existing structures. These standards could be implemented as a condition of development permits.
- Program CD-4.5c Solar Orientation. Implement Title 20.20.030 of the County Code requiring solar orientation for subdivisions.
- Program CD-4.5d Wind Energy Conversion Systems. Continue to implement provisions of the Zoning Ordinance allowing Wind Energy Conversion Systems (Title 22.71.010.-.080).

Policy CD-4.6

Water Conservation. Water should be conserved, both to decrease use of a scarce resource and to reduce the consumption of energy for water distribution.

Program CD-4.6a

Coordination with Water Districts. The County shall coordinate with water districts in the implementation of their water conservation measures, such as requirements for use of native plants in landscaping and for water-conserving fixtures in buildings.

Program CD-4.6b

Comply with State Water Conservation Program. The County shall comply with State requirements to adopt model water conserving regulations for development projects by 1992 and to enforce these requirements by 1993.

Program CD-4.6c

Support Use of Treated Wastewater for Irrigation. The County shall support the use of treated wastewater for irrigation by using wastewater to irrigate County-owned properties and encouraging wastewater irrigation at other public and private facilities.

B. COUNTYWIDE PLANNING FRAMEWORK AND GROWTH MANAGEMENT

Objective CD-5. Role of the Countywide Plan. To establish the Marin Countywide Plan as a statement of goals, policies, and implementation measures that guide the future of Marin County, based on the participation of all cities in the County.

Policy CD-5.1

Role of the Countywide Plan and Countywide Land Use Mapping. The purposes of the Countywide Plan shall be: (1) to provide an overview of development in the cities and the unincorporated County in order to establish a framework within which cities and the County can work together on issues requiring cooperation; and, (2) to establish direction for parts of the County which are not in cities. Generalized land use plan maps have been prepared for the entire county and more detailed land use plan maps have been prepared for the unincorporated areas.

Policy CD-5.2

Establishment of Planning Areas. Planning areas have been established to further define specific area and parcel policies. Planning areas include: (1) Novato; (2) Las Gallinas Valley; (3) San Rafael Basin; (4) Upper Ross Valley; (5) Lower Ross Valley; (6) Richardson Bay; and, (7) West Marin.

Policy CD-5.3

Establishment of Countywide Activity Centers and Community Activity Centers. Areas should be designated as activity centers for business, commercial, and higher density residential development. These areas should be designated as countywide activity centers or community activity centers as shown on Figure CD-1. Development and land use in these centers should provide for a range of activities, which include housing, shopping, jobs, and cultural facilities.

Objective CD-6. Coordination with Other Plans. The Countywide Plan will be coordinated with community plans, city plans, adjacent counties, regional plans, and plans of various special districts.

Policy CD-6.1

Relationship of Community Plans to the Countywide Plan. Community Plans will be adopted as part of the Countywide Plan. Their intent will be to further detail the policies of the Countywide Plan as they pertain to specific areas. Consistency with the Countywide Plan shall be based on the following criteria, among others, as appropriate:

Sections will be included which correspond to Countywide Plan elements;

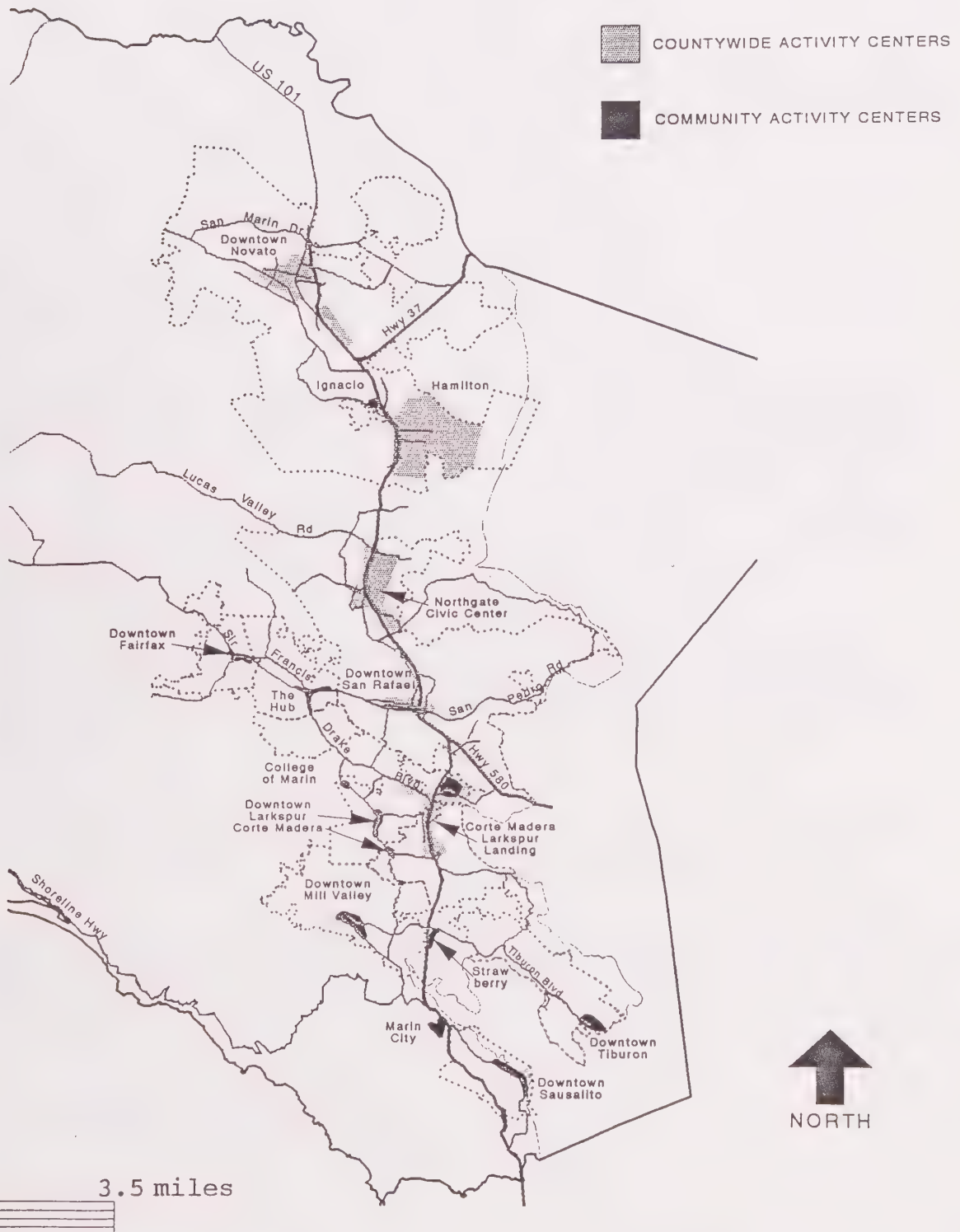
Land use diagrams will show population density and building intensity.

Program CD-6.1a

Revise Existing Community Plans. Revise the following community plans. Revisions shall include current information consistent with the Countywide Plan and shall address special issues:

Strawberry, Stinson Beach, Inverness, Marin City, Nicasio, Tomales, Black Point, Bolinas, and Point Reyes Station.

Figure CD-1
Countywide Activity Centers and
Community Activity Centers



- Policy CD-6.2** **Content of Community Plans.** Community Plans shall contain a land use diagram, population projections, and policies dealing with transportation and community facilities and services, among other parts, as needed.
- Policy CD-6.3** **Relationship of the Countywide Plan to City General Plans.** The Countywide Plan establishes overall growth and development patterns for the County as a whole and should be used as a guide in the development of each city's general plan.
- Policy CD-6.4** **Relationship to Other Local Plans.** The Countywide Plan should be used as a guide in developing and updating specific area or special purpose plans, including those of the Local Coastal Program, Airport Land Use, and Redevelopment.
- Policy CD-6.5** **Relationship to Special District Planning.** The County will coordinate with special districts in the County. Countywide Plan population and employment projections should be used as a guide for projected service and capital project needs.
- Policy CD-6.6** **Relationship to Sonoma County Planning.** Marin County will coordinate with Sonoma County in land use and transportation planning by commenting on the Sonoma County General Plan, city general plans, and major development projects, and by participating in cooperative planning efforts such as the 101 Corridor Study. In addition, Marin County will solicit comments from Sonoma County on Marin's Countywide Plan and other relevant planning studies.
- Policy CD-6.7** **Relationship to San Francisco County Planning.** The County will coordinate with San Francisco County planning by commenting on relevant land use and transportation plans and studies and by participating in cooperative planning efforts. In addition, Marin County will solicit comments from San Francisco County on Marin's Countywide Plan and other relevant planning studies.

Objective CD-7. Growth Management. To manage growth so that transportation, water, and sewer facilities are adequate to serve projected housing and job development. The County shall work with the cities and service districts in order to maintain adequate transportation and community services and facilities, as identified in the Transportation Element and the Community Facilities Element.

Policy CD-7.1 **Defining Growth Management.** Growth management shall be defined as coordinating the provision, timing, and funding of public services and facilities with the growth projected in adopted city general plans and the Countywide Plan. Growth should be managed to accomplish Countywide Plan goals, objectives, and policies.

Policy CD-7.2 **Coordinated Countywide Growth Management.** The County and the cities shall pursue growth management, using the Countywide Planning Agency, a joint powers agency with a representative from each city and the County, as a forum for developing cooperative programs.

Program CD-7.2a **Coordination of General Plans.** The Countywide Planning Agency should conduct a biennial review of the general plans of participating jurisdictions to coordinate growth projections, traffic level of service standards and mitigations, housing policies and programs, environmental quality policies and programs, and policies and programs dealing with provision of community facilities and services. In conducting such a review, the Agency should establish clear standards to be used for evaluation.

Program CD-7.2b **Level of Service Standards.** The Countywide Planning Agency and each participating jurisdiction should establish traffic Level of Service standards for Highway 101 and other routes of regional significance.

Program CD-7.2c **Maintaining Levels of Service.** The Countywide Planning Agency should cooperatively implement capital improvements, transportation services, or modifications to land use designations to maintain the levels of service.

- Program CD-7.2d Linkage of Future Development with Transportation Improvements. The Countywide Planning Agency should develop a program to coordinate the pace of development in all jurisdictions with the provision of transportation system capacity.
- Program CD-7.2e Coordination with Water and Sanitary Districts. The County and the cities, through the Countywide Planning Agency, should report to the appropriate agencies on development activities and growth projections and should coordinate with water and sanitary districts in the provision of water and sanitary facilities.
- Program CD-7.2e Additional Planning Functions. The County and the cities should consider expanding the functions of the Countywide Planning Agency to include activities such as waste management planning and airport land use planning and the design and implementation of a countywide revenue sharing program.

C. LAND USE CATEGORIES, DENSITIES, AND INTENSITIES

Objective CD-8. Land Use Categories, Densities, and Intensities. To establish and map land uses that further the goals of the Countywide Plan. Land use categories are generalized groupings of land uses and titles that define a predominant land use type.

Policy CD-8.1 Land Use Plan Map Designations. Land use designations as shown on the Land Use Policy maps shall be based on such factors as:

- natural resource protection;
- existing and surrounding land uses;
- the area's jobs/housing ratio;
- economic and fiscal goals;
- traffic capacity and transit needs;

environmental hazards; and,
existing zoning.

Program CD-8.1a Review of Zoning Ordinance. The County shall conduct a review of the zoning ordinance to determine whether zoning categories and regulations clearly reflect the intention of the land use plan map designations and express the relationship between land use and population density and appropriate uses and procedures.

Policy CD-8.2 **Land Use Categories.** Land use categories are generalized groupings of land uses and titles that define a predominant land use type. Some listed uses will be conditional uses under zoning, will require a use permit, and may be allowed only in limited areas or under limited circumstances.

Policy CD-8.3 **Density Standards.** Each land use designation shall include standards for building intensity (floor area ratio) or residential density (units per acre). To convert residential units to population, 2.3 persons per household shall be assumed. To convert commercial intensities to numbers of jobs, the following nationwide conversion standards are applied (in employees per 1,000 square feet of gross floor area): *Retail:* 4 employees; *Wholesale:* 3 employees; *Service:* 3 employees; *Manufacturing:* 1.1 employees; *Other:* 3.65 employees.

Policy CD-8.4 **Single-Family Residential Land Use Categories and Densities.** Single-family residential development shall be provided at a range of lower densities, recognizing physical hazards and development constraints, the necessity to protect natural resources, and the availability of public services and facilities. Other consistent uses may include parks, playgrounds, crop and tree farming, nurseries and greenhouses, home occupations, schools, libraries, museums, community centers, churches, hospitals, retreats, educational, philanthropic and charitable institutions, cemeteries, golf courses, country clubs, stables and riding academies, and day care centers for six or more children. If the use is non-residential, the appropriate range of FAR for the land use category shall apply.

The following categories shall be established for single-family residential land use. The zoning designations listed are examples of consistent zoning and are not the only possible consistent zoning designations.

Single-Family 6. Minimum lot size below 10,000 square feet. FAR .01 to .3. Consistent zoning:

R - 1
R - 1: B - 1
R - A: B - 1
R - 1: B - D
BFC - R - F
RSP - 4.36 to RSP - 7.26

Single-Family 5. Minimum lot size 10,000 to 20,000 square feet. FAR .01 to .25. Consistent zoning:

R - A: B - 2
R - 1: B - 2
R - R: B - 2
RSP - 2.2 to RSP - 4
A - 2: B - 2

Single-Family 4. Minimum lot size 20,000 square feet to less than 1 acre. FAR .1 to .15. Consistent zoning:

R - A: B - 3
RSP - 2
RSP - 1.2 to RSP - 2.0
R - 1: B - 3

Single-Family 3. Minimum lot size 1 to 5 acres. FAR .01 to .09. Consistent zoning:

R - 1: B - 4
R - 1: B - 5
R - A: B - 4
R - A: B - 5
R - A: B - 6
ARP - 2

RSP - .20 to RSP - 1
A - 2: B - D
A - 2: B - 4

Single-Family 2. Minimum lot size 5 to 19 acres. FAR .01 to .09. Consistent zoning:

RSP - .1
RSP - .09

Single-Family 1. Minimum lot size of 20 to 60 acres. FAR .01 to .09. Consistent zoning:

RSP - .05

Program CD-8.4a

Revise Zoning Maps. The Planning Department shall revise zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use in unincorporated areas.

Policy CD-8.5

Multi-Family Residential Land Use Categories and Densities. Predominantly multi-family development shall be provided in areas where increased density can be accommodated due to a full range of urban services and location near collector and arterial streets, transit service and neighborhood, community and regional shopping facilities. Other consistent uses may include lodges, fraternity and sorority houses, museums, motels, hotels, apartments and incidental businesses, hospitals, rest homes, sanatoriums and clinics, educational, philanthropic and charitable institutions, child care centers, offices, libraries, churches, community centers and cemeteries. If the use is non-residential, the appropriate range of FAR for the land use category shall apply. The following categories shall be established for multi-family residential land use. The zoning designations listed are examples of consistent zoning and are not the only possible consistent zoning designations.

Multi-Family 4. 11 to 30 units per acre. FAR .1 to .8. Consistent Zoning:

RMP - 11 to RMP - 30
R - 3: G - 1 through G - 4

Multi-Family 3. 5 to 10 units per acre. FAR .1 to .3.
Consistent Zoning:

RMP - 5 to RMP - 10

Multi-Family 2. 1.1 to 4 units per acre. FAR .1 to .3.
Consistent Zoning:

R - 2
RMP - 1 to RMP - 4
R - 3: G - 1 through G - 4

Planned Residential. 1 unit per acre to 1 unit per 10 acres.
FAR .01 to .09. Consistent Zoning:

RMP 1 to .1

Program CD 8.5a

Revise Zoning Maps. The Planning Department shall revise zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use in unincorporated areas.

Policy CD-8.6

Commercial Land Use Categories and Intensities. A mix of retail, office and industrial uses shall be provided in a manner compatible with adjacent residential development, public facilities, natural resource protection, environmental quality, and high standards of urban design. The following categories shall be established for commercial land use. The zoning designations listed are examples of consistent zoning and are not the only possible consistent zoning designations.

General Commercial. Consistent uses include retail businesses, restaurants, public garages, professional offices, community centers, child care centers, parks and playgrounds, schools, libraries, museums, hospitals, churches, educational, charitable and philanthropic institutions, cemeteries, veterinary hospitals, and residential dwellings.

See the land use maps for commercial floor area ratio (FAR) standards. Residential densities up to 30 units per acre may be allowed. Consistent Zoning:

C - P
C - 1 - H
C - 2 - H
H - 1
RMP - .1
RMP - 30

Office Commercial. Consistent uses include medical and dental offices, banks, clinics, hospitals, pharmacies, meeting facilities, community centers, real estate offices, professional offices, laboratories, radio and television broadcasting studios, art galleries, museums, educational, charitable and philanthropic institutions, and residential dwellings. See the land use maps for commercial floor area ratio (FAR) standards. Residential densities up to 30 units per acre may be allowed. Consistent Zoning:

A - P
O - P
RMP 12.2

Retail Commercial. Consistent uses include retail businesses, restaurants, public garages, professional offices, child care centers, parks and playgrounds, schools, libraries, museums, community centers, hospitals, churches, educational, charitable and philanthropic institutions, veterinary hospitals, and residential dwellings. See the land use maps for commercial floor area ratio (FAR) standards. Residential densities up to 30 units per acre may be allowed.

Consistent Zoning:

C - 1 - H
C - P

Residential Commercial. Consistent uses include crop and tree farming, nurseries, greenhouses, stores, shops, offices, banks, restaurants, hospitals, meeting halls, community centers, schools, libraries, churches, museums, child care centers, educational, philanthropic and charitable institutions, and residential dwellings. See the land use maps for residential density and commercial floor area ratio (FAR) standards. Consistent Zoning:

VCR
RMPC
VCR: B - 2

Recreational Commercial. This category shall be designated for resorts and privately-owned recreational facilities, such as golf courses and recreational boat marinas. See the land use maps for commercial floor area ratio (FAR) standards. Consistent Zoning:

RCR

Industrial. This category shall be designated for industrial uses such as warehouses, storage, laboratories, retail sales, and administrative offices. See the land use maps for commercial floor area ratio (FAR) standards. Consistent Zoning:

RMPC - 2.16
M - 1 - H
M - 2
M - 3

Program CD-8.6a Revise Zoning Maps. The Planning Department shall revise zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use in unincorporated areas.

Program CD-8.6b Revise Zoning Ordinance Text. The Planning Department shall revise the text of the zoning ordinance to explain commercial uses and the application of floor area ratios (FAR).

Policy CD-8.7

Public and Quasi-Public Land Use Categories and Intensities. Land shall be designated for both public and quasi-public institutional purposes including open space, schools, hospitals, government facilities, correctional facilities, power distribution facilities, sanitary landfills and water facilities. The following categories shall be established for public and quasi-public land use. Only publicly owned lands may be designated for open space unless subject to deed restrictions or other agreements. The zoning designations listed are examples of consistent zoning and are not the only possible consistent zoning designations.

Public. Consistent Zoning:

PF
PF - RSP
PF - ARP
PF - A - 2; B - 2

Open Space. Consistent Zoning:

O - A

Program CD-8.7a

Revise Zoning Maps. The Planning Department shall revise zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use in unincorporated areas.

Policy CD-8.8

Agricultural Land Use Categories and Intensities. Agricultural land use categories shall be established to preserve and protect agricultural uses. A 60-acre minimum parcel size shall be established as the basic density for agriculture except when other densities are established in community plans or the Local Coastal Program.

Consistent uses may include dairying, grazing and breeding of cattle and sheep; raising poultry, rabbits, and goats; fish hatcheries, oyster farms; crop, vine, and tree farms; greenhouses; farm and ranch buildings; single family dwellings; horse stables; fishing and hunting clubs; gas, electric, water, communication, and flood control facilities; animal hospitals; and institutional uses for educational, scientific, recreational, or religious purposes. The following categories shall be established for agricultural land use. The zoning designations listed are examples of consistent zoning and are not the only possible consistent zoning designations.

Agriculture 3. 1 to 9 acres per unit. FAR .01 to .09.
Consistent Zoning:

ARP - 1 to ARP - 9
A - 2 to A - 5

Agriculture 2. 10 to 30 acres per unit. FAR .01 to .09.
Consistent Zoning:

ARP - 10 to ARP - 30
A - 10 to A - 30

Agriculture 1. 31 to 60 acres per unit. FAR .01 to .09.
Consistent Zoning:

ARP - 31 to ARP - 60
A - 31 to A - 60
APZ - 60

Program CD-8.8a

Revise Zoning Maps. The Planning Department shall revise zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use in unincorporated areas.

Policy CD-8.9

Coastal Zone, Bayfront Conservation Zone, Ridge and Upland Greenbelt. Overlay districts shall be established for areas within the Coastal Zone which are subject to the policies of the Local Coastal Program, and for areas within the Bayfront Conservation Zone and the Ridge and Upland

Greenbelt, designated and mapped in the Environmental Quality Element of the Countywide Plan. The overlay districts shall be combined with one of the land use categories described in Policies CD-8.3 through CD-8.7. Lands within the overlay districts shall be subject to policies established for that district as well as to densities and land uses of the land use category.

Policy CD-8.10

Uses Subject to Use Permit. Certain uses may be considered for approval by use permit which are not subject to population density or building intensity standards. Such uses may include golf courses and tennis courts, swimming pools, and wind energy conversion systems.

IV. PLANS FOR THE SEVEN PLANNING AREAS: OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

This section provides a summary of demographics and land use for the seven planning areas and a description of issues in each planning area. The section also includes land use policies for unincorporated areas and maps which graphically represent the land use policies.

A. NOVATO PLANNING AREA - PA #1 (Land Use Policy Maps 1.1 to 1.7)



The Novato Planning Area consists of the City of Novato and the unincorporated areas of Bel Marin Keys, Black Point, North Novato, West Novato, Indian Valley, Southwest Novato, and Loma Verde.

Table CD-2. Land Use and Demographic Data for the Novato Planning Area (PA#1)

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	49,985 ¹	54,515 ²	65,965 ³
Households	17,462 ¹	20,812 ²	25,565 ³
Average Household Size	2.86	2.62	2.58
Employed Residents	25,658 ¹	30,538 ³	39,419 ³
Jobs	13,783 ¹	18,230 ³	41,799 ³
Employed Residents/Job	1.86	1.68	.94
Land Use			
Housing Units		21,413 ²	26,528 ³
Commercial/Industrial ft ²		5,746,557 ³	13,735,060 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

The 1990 Planning Area population is estimated to be 54,515, which includes the City of Novato's population of 47,585. Population at buildout is estimated to show an increase of approximately 11,000 people and 7,700 households. Household size in the Novato Planning Area was 2.62 in 1990 and is expected to drop to 2.58 in the future.

Commercial Development

The City of Novato has approved development of a more than 600,000 square foot regional shopping mall at Rowland Boulevard and Highway 101. The mall is expected to draw shoppers from Central Marin and Southern Sonoma County, while neighborhood centers and Old Town Novato provide local shopping opportunities.

Job Development

The number of employed residents is expected to increase by about 8,800 persons between 1990 and buildout of the planning area. The number of jobs could increase by 23,000 if the city policy of 10,000 jobs at Hamilton is not changed. In that case, the ratio of employed residents per job would decrease from 1.68 to .94. The Ignacio Industrial Park and Fireman's Fund provided new jobs in Novato in the 1980s. Hamilton is the largest remaining area available for job development, although there are other potential locations for office development in the city. The City of Novato should consider decreasing the number of potential jobs at Hamilton and including a mix of office and industrial jobs in any development on the site.

Housing

Potential exists for 5,100 new housing units in the planning area, most of which would be in the City of Novato. Hamilton should also be considered for additional housing. Bel Marin Keys is the largest potential housing development in the unincorporated area.

Community Facilities

Water is provided by the North Marin Water District, which has an adequate supply to serve projected development. The capacity of the treatment plant of the Novato Sanitary District will need to be expanded to serve development at Hamilton. Fire protection for the whole planning area is provided by the Novato Fire Protection District. The District has a new fire station on Atherton Avenue to serve the area east of Highway 101.

Community Facilities (continued)

The Novato Police Department provides police services in the city, while the sheriff serves the unincorporated area. The County has prepared a master plan for further development of the County Airport, Gness Field.

Coordination with Transportation

Major developments such as Hamilton and Bel Marin Keys will need to be coordinated with transportation improvements, including arterials, interchanges and public transit. Development north of Novato around Gness Field will require construction of a new freeway interchange.

Growth Management

The city, County, and purveyor districts need to develop a coordinated approach to the provision of facilities (including transportation, water, and sewer), and services to serve proposed developments. These issues should be addressed through a growth management and coordinated planning program organized by the Countywide Planning Agency.

Open Space/Agriculture

Major open space areas have been preserved, including: Mount Burdell (more than was targeted in the 1973 and 1982 Countywide Plan), portions of Big Rock Ridge, Days Island, Deer Island, and Rush Creek Marsh. Additional areas proposed for acquisition include additional land on Big Rock Ridge and areas around the mouth of Novato Creek. Flood control ponding areas provide open space and grazing land, while Novato Sanitary District lands, irrigated with treated wastewater, produce a hay crop for West Marin dairy ranches.

Airport Land Use Plan

Development proposals within the Gness Field safety and noise zones are subject to policies of the adopted Airport Land Use Plan which provide specific guidance for allowable uses and densities based on the long-range master plan for development of the airport.

The following policies shall guide the development of land in the unincorporated portion of the Novato Planning Area:

Policy CD-9.1

Bel Marin Keys. Bel Marin Keys is within the Bayfront Conservation Zone and lands shall be designated with a Bayfront Conservation (BFC) overlay on Marin County Zoning Maps.

As shown on Land Use Policy Map 1.1, *agricultural* land uses shall be designated as agriculture and conservation at a density of 2 acres per housing unit to 10 acres per unit. In the developed portion of Bel Marin Keys *multi-family residential* density shall be designated at 11 to 30 units per acre and *single-family* density at 1 to 7 units per acre.

In the undeveloped portion of Bel Marin Keys as shown on Land Use Policy Map 1.1, constraints to development have been identified based on environmental conditions and policy issues.

Most of the 1,600 acre site is used for the agricultural production of oat hay. Change to the site would require evaluation of policies for diked historic marshlands established for the Bayfront Conservation Zone. These policies establish that land uses, such as tidal restoration, agriculture, and flood basins, which provide or protect wetlands or wildlife habitat shall be encouraged but that other land uses, such as public access and recreation, housing (especially for low- and moderate-income people), and water transportation may also be established when it can be proven that public benefit exceeds environmental costs and liabilities.

Any development proposal for the site shall be evaluated in light of Bayfront Conservation Zone policies, site constraints, and documentation produced for environmental review of the site. Land use for Bel Marin Keys is shown on Land Use Policy Map 1.1.

Policy CD-9.2

Black Point. The Black Point Community Plan shall govern land use in Black Point. *Single-family residential* density shall range from 1 unit per acre to 1 unit per 5 acres. *Commercial residential* shall be at a residential density of 1 unit per acre to 1 unit per 5 acres with an FAR ranging from .1 to .3. *Agricultural* densities shall range from 1 unit per 2 acres to 1 unit per 60 acres. Land use for Black Point is shown on Land Use Policy Map 1.2.

Policy CD-9.3

North Novato. An amendment to the City-Centered Corridor boundary is proposed so that lands designated for agriculture, conservation, and open space would be in the Inland Rural Corridor. Lands outside the City-Centered Corridor should be given a agriculture and conservation land use designation which allows for conservation of wetlands and agriculture and which is compatible with neighboring agricultural lands in the Inland Rural Corridor. Lands within the City-Centered Corridor should be designated for *industrial* use at an FAR of .04 to .35, with master plans required for development and for *planned residential* at a density of 1 unit per 1 to 10 acres.

Lands outside Novato's urban service area should be considered for development only after LAFCO reviews and revises urban service area boundaries and plans are made to provide sewer and transportation facilities.

Land use for North Novato is shown on Land Use Policy Map 1.3.

Program CD-9.3a

Bayfront Conservation Zone. Areas inside the Bayfront Conservation Zone should be designated with a BFC overlay on Marin County zoning maps.

Program CD-9.3b

Mineral Resource Areas. Mineral resource areas shall be designated with a mineral resources overlay zone in the Marin County zoning maps.

Policy CD-9.4

West Novato. Land use for West Novato shall include: *single-family residential* ranging from 4 units per acre to 1 unit per 5 acres, *planned residential* ranging from 1 unit per acre to 1 unit per 10 acres; and, *agriculture* ranging from 1 unit per 30 acres to 1 unit per 60 acres. Publicly owned open space is also designated. Land use for West Novato is shown on Land Use Policy Map 1.4.

Policy CD-9.5

Indian Valley. The Indian Valley Specific Plan, adopted by resolution of the Marin County Board of Supervisors in 1973, shall govern land use in Indian Valley. The rural residential character of the community shall be retained through appropriate land use designations, densities, and design standards for subdivisions and land divisions on slopes. Land use for Indian Valley shall include: *single-family residential* at 1 unit per acre to 1 unit per 5 acres; *planned residential* at 1 unit per acre to 1 unit per 10 acres; and, *agriculture* at 1 unit per 10 acres to 1 unit per 60 acres. Land use for Indian Valley is shown on Land Use Policy Map 1.5.

Policy CD-9.6

Southwest Novato. Land use in the Southwest Novato area shall include *agriculture* at 1 unit per 30 to 60 acres. Publicly owned open space is also designated. Land use for Southwest Novato is shown on Land Use Policy Map 1.6.

Policy CD-9.7

Loma Verde. Land use in Loma Verde shall include *single-family residential* ranging from 7 units per acre to 1 unit per 5 acres. The Loma Verde School is designated as a public facility. Land use in Loma Verde is shown on Land Use Policy Map 1.7.

B. LAS GALLINAS VALLEY PLANNING AREA - PA #2
(Land Use Policy Maps 2.1 through 2.6)



The Las Gallinas Valley Planning Area includes Northgate East and West, Terra Linda, the Civic Center, and Smith Ranch, all within the City of San Rafael, as well as the unincorporated areas of St. Vincent's-Silveira, Santa Venetia, Marinwood, and Lucas Valley.

Table CD-3. Land Use and Demographic Data
for the Las Gallinas Planning Area (PA #2)

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	26,788 ¹	25,563 ²	33,289 ³
Households	9,732 ¹	10,254 ²	14,208 ³
Average Household Size	2.75	2.49	2.34
Employed Residents	14,239 ¹	16,778 ³	20,483 ³
Jobs	13,789 ¹	18,412 ³	20,074 ³
Employed Residents/Job	1.03	0.91	1.02
Land Use			
Housing Units		10,629 ²	14,579 ³
Commercial/Industrial ft ²		4,345,725 ³	5,517,178 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

Population could increase by about 7,700 people and 3,900 households when the planning area is fully developed, based on 1990 San Rafael General Plan policies.

Commercial Development

The main commercial center in the Planning Area is at Northgate. Both the Northgate Mall and the Northgate One Shopping Center have been renovated and expanded. A neighborhood commercial center exists in Marinwood and no major increase in commercial retail development is anticipated.

Job Development

At full buildout, about 1,600 new jobs could be provided in the planning area. Present employment centers include the Marin County Civic Center, the Northgate Industrial Park, the Smith Ranch office development, Fireman's Fund, Kaiser Hospital, Commerce Clearing House, and other offices in the Northgate area. In 1990 there were slightly more jobs than employed residents in the planning area. Trends indicate that the number of employed residents will approximately equal jobs in the future.

Housing

Housing types ranges from suburban densities along Lucas Valley Road and in Terra Linda to Contempo Marin Mobile Home Park and multi-family complexes on Channing Way and north of Smith Ranch Road. There is additional residential development potential at the western edge of the planning area on Lucas Valley Road, at the Daphne-Baccocio property on Lucas Valley Road at the Highway 101 interchange, and at St. Vincent's-Silveira. Other housing development will be mainly on infill sites. Potential exists for about 3,900 more housing units in the planning area based on 1990 city and county policies.

Community Facilities

Water is provided by the Marin Municipal Water District. The MMWD is not able to serve most new development without receiving an additional water supply. The Las Gallinas Valley Sanitary District provides collection and treatment of sewage. The plant is expected to be at capacity by 1992 and, at that time, will need plant expansion in order to accommodate additional development.

Community Facilities (continued)

The San Rafael Fire Department provides fire protection to areas within the city limits and to Santa Venetia under contract with County Service Area 19. The Marinwood Fire Department serves Marinwood and Lucas Valley. The San Rafael Police Department serves the City and the Sheriff serves the unincorporated areas.

Coordination with Transportation

The County has adopted the Northgate Activity Center Plan which the City of San Rafael prepared and adopted in 1982 to project the level of road and intersection improvement needed to serve future development. This plan provides for both jurisdictions to collect traffic mitigation fees from developers to pay for needed improvements identified in the plan.

Growth Management

The traffic mitigation policies of the Northgate Activity Center Plan and the San Rafael General Plan coordinate the timing of development with road and intersection improvements. Development approvals should also be coordinated with the Las Gallinas Valley Sanitary District, as it will need to expand its capacity to serve some of the new development projected in the planning area. The City of San Rafael and the County should participate in a countywide growth management program coordinated by the Countywide Planning Agency.

Environmental Quality/Open Space

Significant open space preservation has occurred on the ridge between Terra Linda and Sleepy Hollow, on the San Pedro Ridge, and on the south side of Big Rock Ridge along the north side of Lucas Valley Road. The Las Gallinas Valley Sanitary District has acquired land east of St. Vincent's-Silveira for wastewater irrigation. Portions of the St. Vincent's-Silveira lands located in the Bayfront Conservation Zone should be rezoned to reflect that designation.

The following policies shall guide the development of land in the unincorporated portions of the Las Gallinas Valley Planning Area:

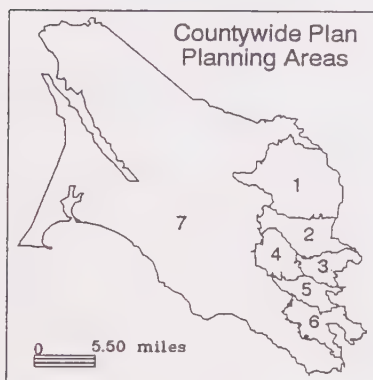
Policy CD-10.1 **Lucas Valley.** Land use designations for Lucas Valley shall include *single-family residential* ranging from 2 to 7 units per acre and *general commercial* at a FAR of .1 to .2, as well as two sites designated for use as public facilities. Land use for Lucas Valley is shown on Land Use Policy Map 2.1.

- Policy CD-10.2** **Marinwood.** Land use designations for Marinwood shall include *single-family residential* at 7 units per acre to 1 unit per 5 acres; *multi-family residential* at 5 to 30 units per acre; *planned residential* at 1 unit per acre to 1 unit per 10 acres; *office commercial* at an FAR of .1 to .2; and, *retail commercial* at an FAR of .1 to .4. Land shall be designated for public facilities and open space. Land use for Marinwood is shown on Land Use Policy Map 2.2.
- Policy CD-10.3** **Lucas Valley Environs.** Land use designations for Lucas Valley environs shall include: *planned residential* at 1 unit per acre to 1 unit per 10 acres, and *agriculture* at 1 unit per 2 acres to 1 unit per 60 acres. Open space is also designated. Land use for the Lucas Valley Environs is shown on Land Use Policy Map 2.3.
- Policy CD-10.4** **Los Ranchitos.** Land use for Los Ranchitos shall include *single-family residential* at 1 unit per acre to 1 unit per 5 acres, and *planned residential* at 1 unit per acre to 1 unit per 10 acres. Land use for Los Ranchitos is shown on Land Use Policy Map 2.4.
- Policy CD-10.5** **Santa Venetia.** Land use for Santa Venetia shall include *single-family residential* at 7 units per acre to 1 unit per acre; *multi-family residential* at 1.1 unit per acre to 30 units per acre; *planned residential* at 1 unit per acre to 1 unit per 10 acres; *general commercial* at an FAR of .05 to .1; *office commercial* at an FAR of .1 to .35; *retail commercial* at an FAR of .1 to .35. Land shall be designated for public facilities and open space. Land use for Santa Venetia is shown on Land Use Policy Map 2.5.
- Policy CD-10.6** **St. Vincent's-Silveira.** These lands were designated as a special study area on the 1982 Countywide Plan Community Development Land Use map and policy statements indicated that it should be developed as a mixed use transit-oriented community with up to 2,400 residential units on the site. In the mid-1980s, the County and the City of San Rafael jointly prepared a North San Rafael Policy Plan, which was not adopted.

The City of San Rafael studied the site again during preparation of its general plan in 1988. These studies identified certain areas as priorities for preservation: lands east of the railroad right-of-way, the riparian corridor along Miller Creek, view corridors from Highway 101, the historic building areas at St. Vincent's School and Church, and the hills at the north end of St. Vincent's which are a ridge and upland greenbelt community separator. Transportation resources have also been identified, including the Northwestern Pacific Railroad right-of-way and the underutilized Marinwood freeway interchange. The San Rafael General Plan identified St. Vincent's-Silveira as an area where a significant portion of the city's housing needs could be met. The city has appointed a broad-based committee to further evaluate constraints and development potential at St. Vincent's-Silveira.

Land use designations for St. Vincent's-Silveira recognize the foregoing constraints and the need for housing (with a strong emphasis on affordable housing) to be a priority in new development. These lands are within the Urban Service Area of the City of San Rafael and should be developed according to city policy. Land Use Policy Map 2.6 designates areas subject to the constraints listed about and identified in the San Rafael General Plan and in the Countywide Plan. Undesignated areas may be suitable for development. No density is established in the draft plan at this time but will be specified in the adopted plan. The County shall consider the findings and recommendations of a study of these lands being conducted by the City of San Rafael and shall designate a land use classification based on interim findings or final results of this study. Land use for St. Vincent's-Silveira is shown on Land Use Policy Map 2.6.

C. SAN RAFAEL BASIN PLANNING AREA - PA #3
(Land Use Policy Maps 3.1 through 3.4)



This planning area includes the City of San Rafael south of Puerto Suello Hill and several small unincorporated areas. Downtown San Rafael is located in Planning Area #3 as well as industrial areas in East San Rafael, and in the West Francisco area. The area includes residential neighborhoods ranging from high density apartments to low density homes on the San Pedro Peninsula.

**Table CD-4. Land Use and Demographic Data
for the San Rafael Basin Planning Area (PA #3)**

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	31,613 ¹	34,823 ²	34,374 ³
Households	13,876 ¹	14,527 ²	16,969 ³
Average Household Size	2.28	2.40	2.03
Employed Residents	17,323 ¹	18,611 ³	21,358 ³
Jobs	19,570 ¹	24,136 ³	34,039 ³
Employed Residents/Job	0.89	0.77	0.63
Land Use			
Housing Units		15,119 ²	17,605 ³
Commercial/Industrial ft ²		8,574,142 ³	12,082,140 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

Population is expected to decrease by about 400 people but households are projected to increase by about 2,400 between 1990 and full buildout, according to the City of San Rafael's present land use policies. Household size increased from 2.28 in 1980 to 2.4 in 1990 but is projected to decrease to 2.02 in the future.

Commercial Development

Downtown San Rafael is the main commercial, cultural, and financial center of the County. Continued revitalization of the area is being fostered through the City's redevelopment plan which includes activities in the downtown, the West Francisco area, and East San Rafael.

Job Development

The number of jobs in the planning area could increase by about 10,000 if all commercially and industrially designated lands were developed. Many of the new jobs would be located in East San Rafael. The ratio of employed residents per job is expected to continue decreasing in the future.

Housing

Potential exists for an increase of approximately 2,500 housing units over the 1990 stock, mostly on infill sites in existing neighborhoods.

Community Facilities

Development in the planning area will be constrained by the Marin Municipal Water District until it develops a new water supply. Sewage treatment, provided by the Central Marin Sanitation District, is adequate. The San Rafael Sanitation District, which provides wastewater collection, is carrying out improvements to the system. The City of San Rafael provides fire protection in the City and unincorporated areas, while the City Police Department serves incorporated areas, and the Sheriff provides police protection in unincorporated portions of the planning area.

Coordination with Transportation

Development is subject to policies of the San Rafael General Plan, which require maintenance of a Level of Service D at all major intersections. The City has established a prioritization system which limits the amount of new development that can be built before major transportation improvements are completed.

Growth Management

The requirement for coordination of new development with transportation improvements ensures that development will not overwhelm roadway and intersection capacity on arterial streets in San Rafael. The city and the County should also participate in a countywide growth management program, which should include countywide traffic mitigation fees, coordination with agencies providing water and sewage treatment, and review of general plans by the Countywide Planning Agency to insure ongoing coordination.

Environmental Quality/Open Space

The Open Space Preserve on the Southern Heights ridge, separating San Rafael from Greenbrae, serves as an important community separator and a visual backdrop for development in San Rafael. Preservation of bayfront lands in East San Rafael is also an important environmental quality and open space issue.

The following policies shall guide the development of land in the unincorporated portions of the San Rafael Basin Planning Area:

Policy CD-11.1

Bayside Acres & County Club. Land use for Bayside Acres and Country Club shall include *single-family residential* at densities ranging from 7 units per acre to 1 unit per 5 acres and *recreational commercial* at an FAR of .005 to .01. Land use for Bayside Acres and County Club is shown on Land Use Policy Map 3.1.

Policy CD-11.2

Point San Pedro. Lands at the Point San Pedro Quarry shall be designated for *mineral resource conservation* as long as quarrying operations continue. The quarry reclamation plan recognizes future conversion to residential, marina and commercial uses. *Single-family residential* density shall range from 2 to 4 units per acre. Land use for Point San Pedro is shown on Land Use Policy Map 3.2 for the existing quarry and as Map 3.2 for land uses in the quarry reclamation plan.

Program CD-11.2a

Mineral Resources Designation. The quarry lands shall be designated with a Mineral Resources overlay zone on the Marin County Zoning Maps.

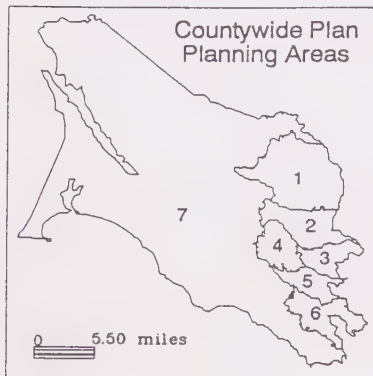
Policy CD-11.3

California Park. Land use for California Park shall include *single-family residential* at densities ranging from 1 to 7 units per acre, *multi-family residential* at densities ranging from 1.1 to 30 units per acre, and *industrial* at an FAR of .1 to .33. Land use for California Park is shown on Land Use Policy Map 3.3.

Policy CD 11.4

Upper Sun Valley. Land use in Upper Sun Valley shall include *single-family residential* at 2 to 4 units per acre and *planned residential* at 1 unit per acre to 1 unit per 10 acres. Land is also designated for *open space* and *quasi-public use* (cemetery). Land use for Upper Sun Valley is shown on Land Use Policy Map 3.4.

D. UPPER ROSS VALLEY PLANNING AREA - PA #4
(Land Use Policy Maps 4.1 through 4.3)



This planning area includes the towns of Ross, San Anselmo, and Fairfax, the unincorporated community of Sleepy Hollow and unincorporated lands west and southwest of Fairfax.

**Table CD-5. Land Use and Demographic Data for the
Upper Ross Valley Planning Area (PA #4)**

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	25,623 ¹	24,196 ²	24,447 ³
Households	10,420 ¹	10,171 ²	11,148 ³
Average Household Size	2.46	2.38	2.19
Employed Residents	13,500 ¹	13,687 ³	14,033 ³
Jobs	4,355 ¹	6,065 ³	6,976 ³
Employed Residents/Job	3.10	2.26	2.01
Land Use			
Housing Units		10,565 ²	11,618 ³
Commercial/Industrial ft ²		1,391,308 ³	1,655,512 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

Since 1980, the population of the Upper Ross Valley has decreased by about 1,400 people. While this decrease is partially caused by a decrease in household size, the number of households has also decreased by about 250. At buildout, the population would increase over the 1990 level by about 250 people and 900 households.

Commercial Development

Ross has a small commercial area around the Ross Common. San Anselmo has a commercial area downtown and the Red Hill shopping center on Sir Francis Drake Boulevard with potential for 11,000 square feet of development. Fairfax has a downtown commercial area along Sir Francis Drake Boulevard, with potential for about 45,000 square feet of development.

Job Development

The Upper Ross Valley has more than two employed residents per job, which means that more than 7,000 of the 13,687 employed residents leave the planning area for work. This situation is likely to continue, given the low potential for developing jobs in the planning area.

Housing

Most of the land in this planning area available for development is designated for single-family housing. Of the approximately 1,000 units for which land is designated, there is potential for only about 80 units on sites designated for multi-family development. If the Ross Hospital site is developed for multi-family housing with a significant inclusionary requirement, it will constitute the Planning Area's major housing opportunity.

Community Facilities

The Planning Area is served by Marin Municipal Water District and is subject to the District's shortfall in water supply. Sanitary District #1 provides transportation of effluent to the Central Marin Sanitary District sewage treatment plant. The Sanitary District needs to continue maintaining and upgrading its collection lines and pump stations to serve present and future development. Fire protection provided by the Ross Valley Fire Department for San Anselmo, Sleepy Hollow, and Fairfax is adequate. Ross has its own fire department.

Community Facilities (continued)

Areas west of Fairfax are served by the County Fire Department and response times sometimes exceed five minutes. Police service is provided by the three towns and by the Sheriff for unincorporated areas.

Coordination with Transportation

Sir Francis Drake Boulevard is the main corridor through the planning area. Traffic is heavy during commute hours. There is a need for signalization in Fairfax and coordinated signals all the way from Fairfax to Greenbrae, as well as local transit service for school and college transportation.

Growth Management

The cities and the County should develop a coordinated approach to the provision of facilities and services to serve proposed developments. These issues should be addressed through a growth management program coordinated by the Countywide Planning Agency. A component of this approach should be a coordinated traffic mitigation program with participation by the County, Fairfax, San Anselmo, and Ross to mitigate traffic impacts on the Sir Francis Drake Boulevard corridor.

Open Space

Much of the planning area is surrounded by open space including: lands west of Fairfax, Marin Municipal Water District lands to the south, Deer Park in Fairfax, and some ridgelands in Sleepy Hollow area. Bald Hill is identified in the San Anselmo General Plan as an area to be preserved as open space.

The following policies shall guide the development of land in the unincorporated portions of the Upper Ross Valley Planning Area:

Policy CD-12.1

Sleepy Hollow. *Single-family residential* densities shall range from 7 housing units per acre to 1.1 unit per 5 acres. *Multi-family residential* densities shall range from 1 to 4 units per acre. *Planned residential* development shall range from 1 unit per acre to 1 unit per 10 acres. *Agricultural* land use shall range from 1 unit per 30 acres to 1 unit per 60 acres. Land shall be designated for *public facilities* and *open space*. Land use for Sleepy Hollow is shown in Land Use Policy Map 4.1.

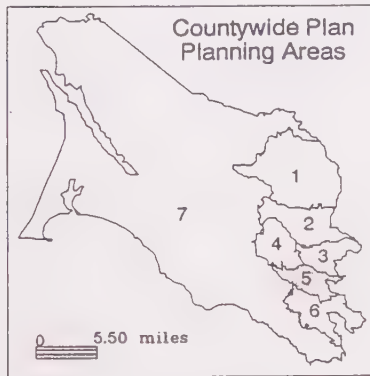
Policy CD-12.2

Lands Southwest of Fairfax. *Single-family residential* density shall be established at 4 to 7 units per acre. *Multi-family residential* density shall be 1 to 4 units per acre. *Planned residential* density shall be 1 unit per acre to 1 unit per 10 acres. Land shall be designated for *open space*. Land use for the land southwest of Fairfax is shown on Land Use Policy Map 4.2.

Policy CD-12.3

Lands West of Fairfax. *Single-family residential* density shall range from 7 units per acre to 1 unit per 20 acres. *Multi-family residential* density shall range from 11 to 30 units per acre. *Planned residential* density shall range from 1 unit per acre to 1 unit per 10 acres. *Retail commercial* FAR shall be .05 to .15. *Recreational commercial* FAR shall be .01 to .03. *Agricultural* land use shall be established at 1 housing unit per 30 to 60 acres. Land shall be designated for publicly-owned *open space*. Land use for lands west of Fairfax area is shown on Land Use Policy Map 4.3.

E. LOWER ROSS VALLEY PLANNING AREA - PA #5
(Land Use Policy Maps 5.1 through 5.3)



The Lower Ross Valley Planning Area includes the Town of Corte Madera, the City of Larkspur, and the unincorporated communities of Kentfield/Greenbrae, San Quentin, and the Greenbrae Boardwalk.

Table CD-6. Land Use and Demographic Data for the Lower Ross Valley Planning Area (PA #5)

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	29,220 ¹	31,451 ²	31,218 ³
Households	11,396 ¹	11,933 ²	13,483 ³
Average Household Size	2.56	2.64	2.32
Employed Residents	14,313 ¹	15,768 ³	16,933 ³
Jobs	12,991 ¹	20,589 ³	21,543 ³
Employed Residents/Job	1.10	0.77	0.79
Land Use			
Housing Units		12,394 ²	13,970 ³
Commercial/Industrial ft ²		4,602,495 ³	5,084,995 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

The population of the planning area grew by about 2,200 between 1980 and 1990. Future population is anticipated to be 31,218, about 230 less than the 1990 population. Household population is expected to decrease from 2.64 persons per household to 2.32 persons per household.

Commercial Development

Corte Madera has two shopping centers east and west of Highway 101 at the Tamalpais Drive interchange. Larkspur has the Larkspur Landing and Bon Air Centers, as well as the downtown area along Magnolia Avenue. There is a commercial area in Kentfield along Sir Francis Drake Boulevard and College Avenue. Little expansion of commercial areas is anticipated.

Job Development

Major job centers are at Larkspur Landing, Bon Air Center, Marin General Hospital, and the College of Marin, as well as the larger shopping centers. Mixed use development at Larkspur Landing and Bon Air provide opportunities to live and work in the same area. Between 1980 and 1990 the number of employed residents per job decreased from 1.1 to .77, resulting in more jobs than employed residents in the planning area. Only about 1,000 additional new jobs are expected in the future.

Housing

Potential exists for about 1,500 new housing units in the planning area. Larkspur has a potential for nearly 300 multi-family units and some single-family housing. Corte Madera has identified a potential for 320 new dwelling units.

Community Facilities

The Planning Area is within the boundaries of the Marin Municipal Water District and is affected by the moratorium on new water connections pending development of a new water supply by the District. Sewage treatment services are provided by the Central Marin Sanitation Agency. Larkspur Department of Public Works, and Sanitary Districts #1 and #2 provide transportation of effluent to the treatment plant. Larkspur, Corte Madera, Kentfield, and the County have mutual aid agreements for fire protection.

Community Facilities (continued)

Larkspur and Corte Madera provide police protection through the Twin Cities Police Department formed by a Joint Powers Agreement. The Sheriff provides police protection in unincorporated areas.

Coordination with Transportation

The County and Larkspur are working on the coordination of traffic signals and improvements on Sir Francis Drake Boulevard. Larkspur and Corte Madera collect traffic mitigation fees from developers for local street improvements.

Growth Management

The County and the cities should develop a coordinated approach to the provision of facilities and services to serve proposed developments. These issues should be addressed through a growth management program coordinated by the Countywide Planning Agency. As part of this approach the County and the two cities should develop a formal transportation improvement plan and traffic mitigation fee program for collector streets and Highway 101 interchanges.

Environmental Quality/Open Space

Areas designated as ridge and upland greenbelt community separators have been acquired as open space: 90% of Northridge and 80% of the Corte Madera watershed. None of Southern Heights Ridge, separating Greenbrae and Larkspur from San Rafael, has been acquired. The Corte Madera Bayfront lands targeted as open space have also been acquired.

The following policies shall guide the development of land in the unincorporated portions of the Lower Ross Valley Planning Area:

Policy CD-13.1

Kentfield/Greenbrae. The Kentfield/Greenbrae Community Plan shall govern land use in the Kentfield/Greenbrae area. Land use designations shall include: *single-family residential* at 7 units per acre to 1 unit per 5 acres; *multi-family residential* ranging from 30 units per acre to 1 unit per acre; *planned residential* at 1 unit per acre to 1 unit per 10 acres; and *general commercial*, *office commercial*, and *retail commercial* at an FAR of .1 to .35. Land shall be designated for *public facilities* and *open space*. Land use for Kentfield/Greenbrae is shown on Land Use Policy Map 5.1.1 and 5.1.2.

Policy CD-13.2

San Quentin. Land use designations for *single-family residential* development on the San Quentin Peninsula shall range from 7 units per acre to 1 unit per 5 acres; *multi-family* designations shall range from 5 to 10 units per acre. San Quentin Prison shall be designated for use as a *public facility*. Designations for San Quentin are shown on Land Use Policy Map 5.2.

Policy CD-13.3

Greenbrae Boardwalk. Land shall be designated for single-family residential use at densities ranging from 7 to 2 units per acre. The railroad right-of-way shall be designated as a public facility. Land use for the Greenbrae Boardwalk area is shown on Land Use Policy Map 5.3.

F. RICHARDSON BAY PLANNING AREA - PA #6
(Land Use Policy Maps 6.1 through 6.5)



The Richardson Bay Planning Area includes the cities of Sausalito, Mill Valley, and Belvedere, the Town of Tiburon, the unincorporated communities of Strawberry, Marin City, and Tamalpais Valley, and the unincorporated areas of Alto, Paradise Drive, and Waldo Point.

Table CD-7. Land Use and Demographic Data for the Richardson Bay Planning Area (PA #6)

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	47,983 ¹	47,755 ²	50,821 ³
Households	21,508 ¹	22,491 ²	25,195 ³
Average Household Size	2.23	2.12	2.02
Employed Residents	27,903 ¹	29,785 ³	31,817 ³
Jobs	12,113 ¹	15,050 ³	17,347 ³
Employed Residents/Job	2.30	1.98	1.83
Land Use			
Housing Units		23,542 ²	26,464 ³
Commercial/Industrial ft ²		4,120,406 ³	4,948,875 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

Population in the planning area declined by about 225 people between 1980 and 1990 while the number of households increased by about 1,000. Decrease in household size accounts for the increase in number of households and decrease in population. If the planning area is fully developed according to current policy, the population is expected to grow by 3,000 people and 2,700 households.

Commercial Development

Commercial centers in the planning area include the Strawberry Shopping Center, downtown Sausalito, downtown Tiburon, the Cove Shopping Center in Tiburon, downtown Mill Valley, commercial areas along East Blithedale and Miller Avenues, and Tamalpais Junction. A development proposal for Tamalpais Junction would add 57,000 square feet of retail space. A proposed development in Marin City would add 120,000 to 180,000 square feet of commercial space.

Job Development

The development proposed for Marin City could add up to 170,000 square feet of office or hotel space. The Strawberry Center will add 100,000 square feet of office space. The ratio of employed residents to jobs decreased slightly between 1980 and 1990 but the planning area had almost twice as many employed residents as jobs in 1990. By the time the approximately 800,000 projected square feet of commercial space is developed, the ratio of employed residents to jobs would be reduced to 1.83.

Housing

About 2,900 housing units could be constructed in the planning area based on 1990 city and county land use policies. Many of the remaining housing sites are on single-family lots or small subdivisions. Marin City is a major housing opportunity area with potential for over 300 units, 40% of which would be reserved as units affordable to moderate-, low- and very-low income households.

Community Facilities

Water is provided by the Marin Municipal Water District and will be dependent on the District's ability to develop a new water source.

Community Facilities (continued)

Six agencies serving Mill Valley, some unincorporated communities west of Highway 101, and Strawberry have formed the Sewerage Agency of Southern Marin to provide sewage treatment. Each agency provides its own delivery system to the sewage treatment plant.

The sewage treatment plant has adequate capacity for 10 to 20 years. The Sausalito-Marín City Sanitary District has adequate capacity to serve projected development in those two communities and Sausalito District #5 has adequate facilities for Tiburon. Water flow for fire protection is inadequate in some hill areas where water mains are old and pressure is low. Police protection is provided by city police departments and the County Sheriff based at the Marin City Station is adequate.

Coordination with Transportation

Improvements to the Marin City interchange with Highway 101 are being proposed in conjunction with the residential and commercial development project. Improvements are also needed along Tiburon Boulevard and at the Tiburon Boulevard interchange with Highway 101.

Growth Management

The cities, County, and purveyor districts need to develop a coordinated approach to the provision of facilities and services to serve proposed developments. These issues should be addressed through a growth management program coordinated by the Countywide Planning Agency. As part of this program the County should work with Tiburon and Mill Valley on a coordinated plan for improvements and traffic mitigation fees to serve development which will use Tiburon Boulevard and the Highway 101 interchange.

Environmental Quality/Open Space

Some areas targeted as community separators have not yet been publicly acquired. Only 22% of the area targeted for Wolfback Ridge, 15% of the Tamalpais ridges, and 48% of Tiburon Ridge have been acquired as open space. About 40% of designated waterfront areas along Richardson Bay and 90% of targeted areas on the east side of the Tiburon Peninsula have been acquired.

The following policies shall guide the development of land in the unincorporated portions of the Richardson Bay Planning Area:

Policy CD-14.1

Marin City. The Marin City Community Plan and the Marin City Redevelopment Plan shall govern land use in Marin City. *Single-family residential* density shall be 4 to 7 units per acre; *planned residential* density shall be 1 unit per acre to 1 unit per 10 acres.

Multi-family residential densities shall range from 1.1 unit per acre to 35 units per acre. *Residential commercial* areas shall be designated at residential densities of 11 to 35 units per acre and *commercial* FAR up to .6. *General commercial* FAR shall be .6. Land shall be designated for *public facilities* and *open space*. Land uses for Marin City are shown on Land Use Policy Map 6.1.

Policy CD-14.2

Strawberry. The Strawberry Community Plan shall govern land use in Strawberry. *Single-family* densities shall range from 7 units per acre to 1 unit per 5 acres; *planned residential* densities from 1 unit per acre to 1 unit per 10 acres; and *multi-family residential* densities from 1.1 to 30 units per acre. *General commercial* FAR shall range from .1 to .5; *office commercial* FAR from .1 to .8; *retail commercial* FAR from .05 to .35.; *residential commercial* shall range from 1 to 4 units per acre and .1 to .5 FAR. Land shall be designated for public facilities and open space. Land uses for Strawberry are shown on Land Use Policy Maps 6.2.1 and 6.2.2.

Policy CD-14.3

Tamalpais Area. The Tamalpais Area Community Plan shall govern land use in the Tamalpais area. *Single-family residential* densities shall range from 7 units per acre to 1 unit per 5 acres; *multi-family* densities from 1 unit per acre to 30 units per acre; *planned residential* densities from 1 to 10 units per acre. The FAR for *general commercial* shall be .05 to .35; *office-commercial* .05 to .3; *retail commercial* .05 to .3; and *recreational commercial* from .05 to .3. *Residential commercial* shall range from 2 to 6 units per acre and .05 to .4 FAR. Land uses for the Tamalpais Area are shown on Land Use Policy Maps 6.3.1 through 6.3.4.

Policy CD-14.4

Tiburon Peninsula. *Single-family residential* densities shall range from 7 units per acre to 1 unit per 5 acres. *Multi-family residential* densities shall range from 1 to 4 units per acre. *Planned residential* density shall range from 1 to 10 units per acre. Land uses for the Tiburon Peninsula are shown on Land Use Policy Map 6.4.

Policy CD-14.5

Waldo Point. *Floating home* density shall be designated at 4 to 7 units per acre. *Retail commercial* FAR shall be .2 to .63. Land uses for Waldo Point are shown on Land Use Policy Map 6.5.

G. WEST MARIN - PA #7
(Land Use Policy Maps 7.1 through 7.13)



The West Marin Planning Area includes all the unincorporated lands in the Inland Rural Corridor and the Coastal Recreational Corridor. The planning area includes 15 villages; agricultural land; and Federal, State, and County parklands.

Table CD-8. Land Use and Demographic Data for the West Marin Planning Area (PA #7)

Information Category	1980 Actual	1990 Estimate	Buildout Projection
Demographics			
Population	11,356 ¹	11,793 ²	19,730 ³
Households	4,329 ¹	4,818 ²	8,709 ³
Average Household Size	2.62	2.45	2.27
Employed Residents	5,624 ¹	6,877 ³	11,221 ³
Jobs	1,252 ¹	2,358 ³	3,655 ³
Employed Residents/Job	4.49	2.92	3.07
Land Use			
Housing Units		6,095 ²	9,179 ³
Commercial/Industrial ft ²		790,123 ³	1,421,205 ³

¹ ABAG Projections 1990

² U.S. Bureau of the Census

³ Marin County Planning Department

Population/Demographics

Population grew by about 440 people and 490 households between 1980 and 1990. Household size decreased from 2.62 to 2.45. Additional development potential could add nearly 8,000 more people and 3,900 more households. However, if the 1989-1990 development rate continues, this potential would not be realized for more than 100 years.

Commercial Development

Commercial development in West Marin is limited primarily to the business districts of villages. Commercial development will take place mainly through redevelopment and remodeling of existing structures, infilling of vacant parcels, and use of commercial potential of land designated for village-commercial-residential use. This is compatible with the rural character of these communities.

Job Development

Opportunities for job development are limited in West Marin, with three employed residents for every job in 1990. In other words, two out of three workers need to commute elsewhere to work. This situation is expected to continue into the future.

Housing

At past development rates, West Marin's housing potential of 3,000 units on non-agricultural parcels would not be realized for many years. Second units provide a supply of housing in West Marin which tends to be affordable to low- and moderate-income households. A few small housing projects for low-income residents may be provided by non-profit developers.

Community Facilities

Special districts provide water to the communities of Stinson Beach, Bolinas, Inverness, and Muir Beach. Dillon Beach is served by two private water companies. Bolinas has a moratorium on new water connections due to inadequate storage capacity for serving new development. The North Marin Water District provides water to Point Reyes Station. Other areas of West Marin rely on wells. Tomales is served by a sewer system, as are portions of Bolinas and Dillon Beach. Other areas use septic systems for sewage disposal. Stinson Beach, Inverness, and Bolinas have fire protection districts. All other areas are served by the County Fire District. The Sheriff provides police protection for all of West Marin.

Coordination with Transportation

Transportation concerns in West Marin focus mainly on visitor traffic and parking on weekends and holidays. Local land use does not generate heavy traffic.

Growth Management

Community plans prescribe location and type of growth in village areas. The Local Coastal Program further defines the location and type of development which should be allowed in the Coastal Zone. The remaining lands are designated for agriculture. These constraints effectively regulate growth in West Marin.

Agriculture, Environmental Quality, and Open Space

The majority of land in West Marin is designated for agriculture or is part of the Federal and State park systems. Agricultural issues are addressed in the Agriculture Element of the Countywide Plan. Land in the Coastal Zone is subject to policies of Marin County's Local Coastal Program which include protection of streams, lagoons, Tomales Bay, dunes and beaches, habitats, wetlands, and agriculture. In the Inland Rural Corridor, lands are designated for agricultural use with a 60 acre minimum parcel size as the prevailing density.

The following policies shall govern land use in West Marin:

- Policy CD-15.1** **Designation of Lands for Agriculture.** The County shall designate lands for agriculture at very low densities in the Inland Rural and Coastal Recreation Corridors and maintain these land use designations.
- Policy CD-15.2** **Lands in the Coastal Zone.** The Local Coastal Program, Parts I and II, shall govern land use in the Coastal Zone. Community plans in the Coastal Zone shall be subject to LCP policies.
- Policy CD-15.3** **Village Development.** To maintain the character, heritage and identity of the villages in West Marin, the County shall adopt a community plan for each community. As needed, community plans shall be periodically revised.

Policy CD-15.4

Village Boundaries. The following issues should be considered if changes in village boundaries are proposed as amendments to community plans:

Boundaries of existing developed areas. In some cases, infilling within these areas is the only expansion recommended.

Boundaries within which villages should be allowed to expand in the future. Criteria setting these boundaries are described below.

"Area of interest," boundaries for each village, outside the area of expansion but close enough that any development or use has significant impacts on the village. These boundaries will be set during the preparation of village plans.

Criteria Used in Setting Village Expansion Area Boundaries:

boundaries of existing and proposed public open space (Golden Gate National Recreation Area, Point Reyes National Seashore);

boundaries used in studies by the Planning Department and local planning groups;

areas under agricultural zoning;

service area boundaries of utility districts;

watershed boundaries;

natural barriers: terrain, water, cliffs, open space separating developed areas;

man-made barriers: roads, dikes;

adequate land to accommodate population growth projections and to allow flexibility and choice;

existing subdivisions;

floodplains and areas subject to seismic hazard.

Policy CD-15.5

Avoid Large-Scale Development. Large-scale development within villages that would rapidly or drastically change the character of the village or require expensive new urban services should be discouraged, but social and economic diversity should be encouraged. The expansion of public utilities should be coordinated with Plan policies.

Policy CD-15.6

Diversity in Lot Size and Architecture. Diversity in lot size and architecture should be encouraged.

Policy CD-15.7

Historic Structures. Historic structures should be preserved, and the long-established character of village centers should be enhanced. The overall physical character of present villages should be protected from damage or rapid change. Of particular importance are historic buildings or areas that meet one or more of the following criteria:

age;

a fine example of a particular style;

a work of a notable architect or builder;

the site of an historic event;

a building associated with a famous person;

industries or activities that are part of the history of the area.

Policy CD-15.8

Tourist Facilities. No large tourist facility should be allowed in the villages, but some small tourist-oriented businesses may be permitted. Within villages and expansion areas, small-scale needs to serve visitors to major public recreation areas and tourist developments such as campgrounds, hotels, shops, and restaurants should be permitted, if they are consistent with local community plans.

Policy CD-15.9

Village Commercial Residential Designation. Village commercial residential and coastal village commercial residential designations shall be established in West Marin villages. These designations shall allow flexibility in use, density, and FAR depending on parcel size and configuration, parking needs, mix of residential and commercial uses, and community plan policies. Standards shall be established in the Marin County Zoning Ordinance (Title 22.31) and shall be applied on a site-specific basis.

Policy CD-15.10

Muir Beach. The Muir Beach Community Plan shall govern land use in Muir Beach. The community should maintain its rural residential environment with surrounding lands designated for agricultural use. *Coastal single-family residential* densities shall range from 4 units per acre to 1 unit per 5 acres. *Coastal residential commercial* land use shall be designated at a density of 1 unit per acre to 1 unit per 20 acres and an FAR of .3 to .5. *Coastal agriculture* shall be designated at 1 housing unit per 30 to 60 acres. Land shall be designated for *open space*. Land use for Muir Beach is shown on Land Use Policy Map 7.2.

Policy CD-15.11

Stinson Beach. The Stinson Beach Community Plan shall govern land use in Stinson Beach. Single-family densities should be retained. Second units should be legalized to the extent possible, and the limits of the present community plan area should be retained. *Coastal single-family residential* densities shall range from 7 units per acre to 1 unit per 5 acres; *coastal multi-family residential* densities shall range from 1.1 to 4 units per acre. *Coastal retail commercial* shall be established at an FAR of .05 to .25. *Coastal village commercial residential* land use shall be designated at a density of 1 unit per acre to 1 unit per 80 acres and FAR of .3 to .5. *Coastal agriculture* shall range from a density of 2 housing units per acre to 10 acres per unit. Land shall be designated for *open space*. Land use for Stinson Beach is shown on Land Use Policy Map 7.3.

Policy CD-15.12

Bolinas. The Bolinas Community Plan and the Bolinas Gridded Mesa Plan shall govern land use in Bolinas. A mix of agricultural and residential uses should be retained and development of local jobs for residents should be encouraged. There should be safe, environmentally-sound development on the Bolinas Mesa based on the following constraints: septic capacity, slope stability, drainage, and geologic hazards. *Coastal single-family residential* densities shall range from 4 units per acre to 1 unit per 5 acres. *Coastal residential commercial* land use shall be designated at a density of 1 unit per acre to 1 unit per 20 acres and an FAR of .3 to .5. *Coastal agriculture* shall range from 1 housing unit per 2 acres to 1 unit per 60 acres. Land shall be designated for *public facilities* and *open space*. Land use for Bolinas is shown on Land Use Policy Map 7.4.

Policy CD-15.13

San Geronimo Valley. The San Geronimo Valley Community Plan shall govern land use in the San Geronimo Valley. The rural atmosphere of the valley and the strong identity of the villages of Woodacre, San Geronimo, Forest Knolls, and Lagunitas shall be maintained. Outside village boundaries, land uses shall include *single-family residential* at densities ranging from 1 unit per 5 acres to 1 unit per 60 acres; *agricultural* at 1 unit per 2 acres to 1 unit per 60 acres, and *commercial recreation* at an FAR of .005 to .01. Land use for the San Geronimo Valley is shown on Land Use Policy Map 7.5.0.

Land uses in the four villages shall include *single-family residential* ranging from 4 units per acre to 1 unit per 20 acres. *Commercial residential* uses shall be established at residential densities ranging from 1 unit per acre to 1 unit per 20 acres and FARs ranging from .3 to .5. *General commercial* land use shall range from FAR .05 to .15. Land shall be designated for *public facilities* and *open space*. Land use for the villages of Woodacre, San Geronimo, Forest Knolls, and Lagunitas are shown on Land Use Policy Maps 7.5.1 through 7.5.4.

Policy CD-15.14

Nicasio. The Nicasio Valley Community Plan shall govern land use in Nicasio. Land shall be retained in parcels large enough to allow the continuation of agriculture. New residential development shall be in harmony with natural resources and agriculture, and land use impacts on the Nicasio Reservoir shall be minimized to maintain and improve water quality. *Agricultural* land use designations shall range from 1 housing unit per 2 acres to 1 unit per 60 acres. *Residential commercial* land use shall be established at *residential* densities ranging from 1 unit per acre to 1 unit per 20 acres and at *commercial* FARs ranging from .3 to .5. Land shall be designated for public facilities and open space. Land use for Nicasio is shown on Land Use Policy Map 7.6.

Policy CD 15.15

Northwest Marin. Land use outside community plan areas and the Point Reyes National Seashore and Golden Gate National Recreation Area shall be designated for *agriculture* at densities of 1 housing unit per 30 acres to 1 unit per 60 acres. Park and water district lands shall be designated as *open space*. Land shall be designated for *coastal commercial recreation* at an FAR of .005 to .10. A mineral resource area shall be designated. Land use for Northwest Marin is shown on Land Use Policy Map 7.7.

Program 15.15a

Mineral Resource Area. The mineral resource area shall be designated with a mineral resource overlay zone on the Marin County maps.

Policy CD 15.16

Olema. Land use in Olema shall be designated as follows: *coastal single-family residential* at 1 to 2 units per acre; *coastal residential commercial* at *residential* densities ranging from 1 unit per acre to one unit per 20 acres and *commercial* FARs from .3 to .5; *coastal recreational commercial* from .05 to .15 FAR; and *coastal agricultural* at 1 unit per 2 acres to 1 unit per 10 acres. Land use for Olema is shown on Land Use Policy Map 7.8.

Policy CD-15.17

Point Reyes Station. The Point Reyes Station Community Plan shall govern land use in the Point Reyes Community Plan Area. Commercial development shall be maintained in the downtown core. The present scale of development shall be maintained throughout the village and home occupations and cottage industry shall be encouraged. *Coastal single-family residential* densities shall range from 4 units per acre to 1 unit per acre. *Coastal multi-family residential* density shall range from 5 to 10 units per acre. *Coastal residential commercial* land use shall be designated at *residential* densities ranging from 1 unit per acre to 1 unit per 20 acres, and *commercial* FARs ranging from .3 to .5. *Coastal agricultural* land use shall range from 1 housing unit per 2 acres to 1 unit per 60 acres. *Coastal open space* shall be designated. Land use for the Point Reyes Community Plan Area is shown on Land Use Policy Map 7.9.

Policy CD-15.18

Inverness Ridge. The Inverness Ridge Community Plan shall govern land use in the Inverness and Inverness Park communities. Established neighborhoods shall be maintained. Inverness Ridge shall be preserved for viewshed and watershed purposes and land and watershed areas along Tomales Bay shall be conserved. *Coastal single-family residential* land use shall range from 1 unit per acre to 1 unit per 20 acres. *Coastal commercial* FAR shall be .05 to .3 and *coastal recreational commercial* FAR shall be .05 to .15. *Coastal agricultural* land use shall range from 1 housing unit per 30 acres to 1 unit per 60 acres. Land shall be designated for *coastal open space*. Land use in the Inverness Ridge Area is shown on Land Use Policy Map 7.10.

Policy CD-15.19

East Shore of Tomales Bay. The East Shore Community Plan shall govern land use in the East Shore Planning Area. The agriculture and commercial fishing activities shall be maintained and the small-town atmosphere of Marshall and its local-serving commercial activities shall be retained. Development rights should be transferred from the ranches to the village areas. *Coastal single-family residential* densities shall range from 1 unit per acre to 1 unit per 5 acres. *Coastal residential commercial* land use shall be designated at *residential* densities ranging from 1 unit per acre to 1 unit per 20 acres and *commercial* FARs ranging from .3 to .5.

Coastal general commercial FAR shall be .05 to .1. *Coastal recreational-commercial* FAR shall be .05 to .3. *Coastal agricultural* land use shall range from 1 unit per 2 acres to 1 unit per 60 acres. Land shall be designated for *open space*. Land use for the East Shore is shown on Land Use Policy Maps 7.11.0, 7.11.1, and 7.11.2.

Policy CD-15.20

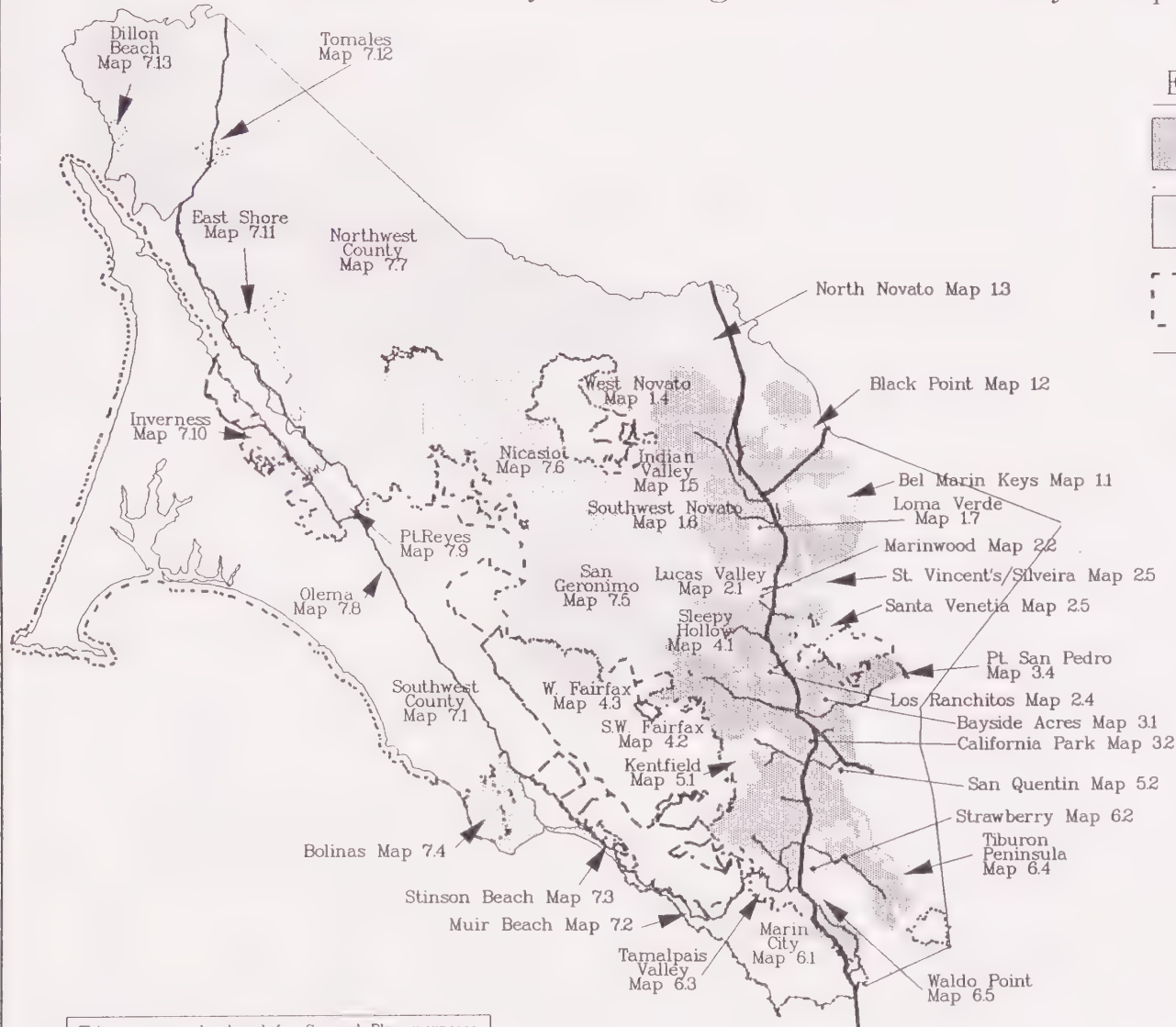
Tomales. The Tomales Community Plan shall govern land use in Tomales. The visual and historic character of Tomales shall be preserved; low density shall be maintained at the periphery of the community and the agricultural designation for lands outside the town shall be maintained. *Coastal single-family residential* density shall range from 7 units per acre to 1 unit per 5 acres. *Coastal general commercial* FAR shall be .1 to .25. *Agricultural* designations shall range from 1 unit per 2 acres to 1 dwelling unit per 30 acres. Land shall be designated for *coastal residential commercial* use at *residential* densities ranging from 1 unit per acre to 1 unit per 20 acres and *commercial* FARs ranging from .3 to .5. Land shall be designated for public facilities. Land use for Tomales is shown on Land Use Policy Map 7.12.

Policy CD-15.21

Dillon Beach. Land use for Dillon Beach shall be governed by the Dillon Beach Community Plan. The community's environmentally sensitive features shall be protected through sound conservation and development policies. Public access and public recreation opportunities shall be provided consistent with resource preservation and the rights of property owners. Socioeconomic diversity of lifestyles shall be recognized and provision shall be made for their continuance. *Coastal single-family residential* densities shall range from 7 units per acre to 1.1 unit per 5 acres, and *coastal multi-family residential* density 1 to 4 units per acre. *Coastal residential commercial* land shall be designated at *residential* densities ranging from 1 unit per acre to 1 unit per 20 acres and commercial FARs ranging from .3 to .5. *Coastal recreational commercial* FAR shall be .005 to .1. Land shall be designated for *agricultural* at 1 housing unit per 30 to 60 acres. Land use for Dillon Beach is shown on Land Use Policy Map 7.13.

LAND USE POLICY MAPS

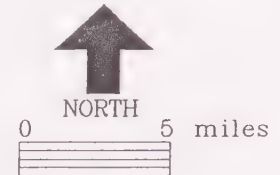
MAP 0.0 Marin County Existing Land Use Policy Map Index



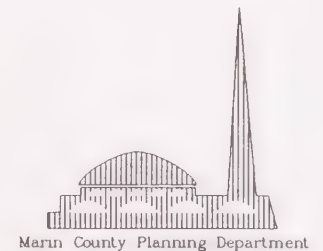
Existing Land Use Policy 1991

- Incorporated Cities
- Areas detailed in Community Maps
- Open Space Areas including National, State and Regional Parks and Water District Lands

Source:
Assessor's Parcel Book Zoning
Overlays as of January 1991
except as otherwise indicated
on individual maps.



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



MAP 10 Planning Area 1 (Novato)

Land Use Map Index

LEGEND

 Novato
Planning Area

 Major Roads

 Residential Roads



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

*Southwest
Novato
Map 16*

*North Novato
Map 13*

*West Novato
Map 14*

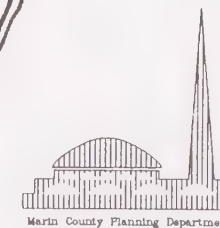
*Indian Valley
Map 15*

*Black Point
Map 12*

*Bel Marin
Map 11*

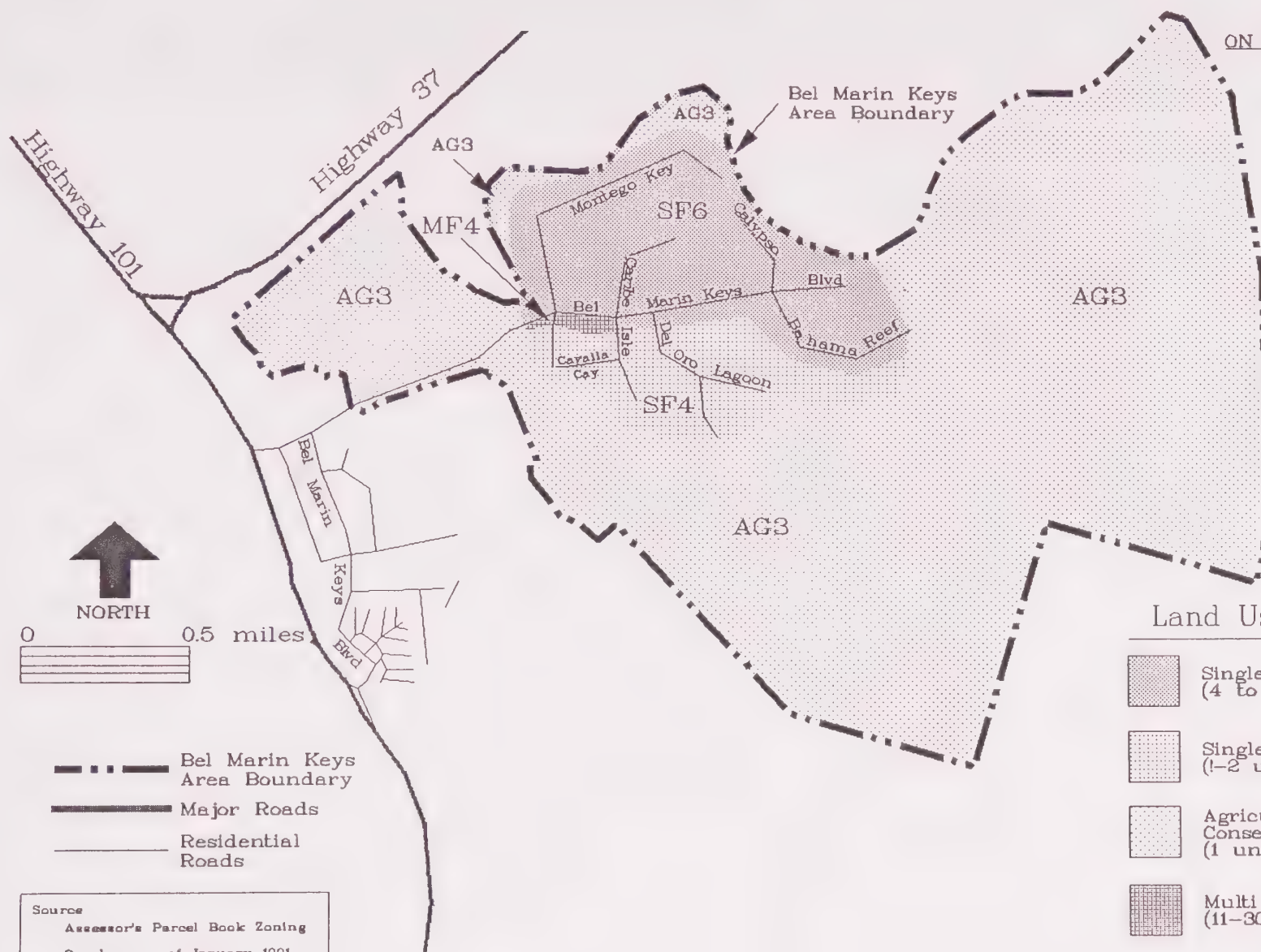
*Loma Verde
Map 17*

San Pablo
Bay



MAP 1.1 Bel Marin Keys Area Land Use Policy Map

ALL AREAS SHOWN
ON THIS MAP ARE WITHIN
THE BAYFRONT
CONSERVATION ZONE










Land Use Policy 1991




	Single Family (4 to 7 units/acre)	SF6
	Single Family (1-2 units/acre)	SF4
	Agriculture and Conservation (1 unit/2 to 10 acres)	AG3
	Multi Family (11-30 units/acre)	MF4

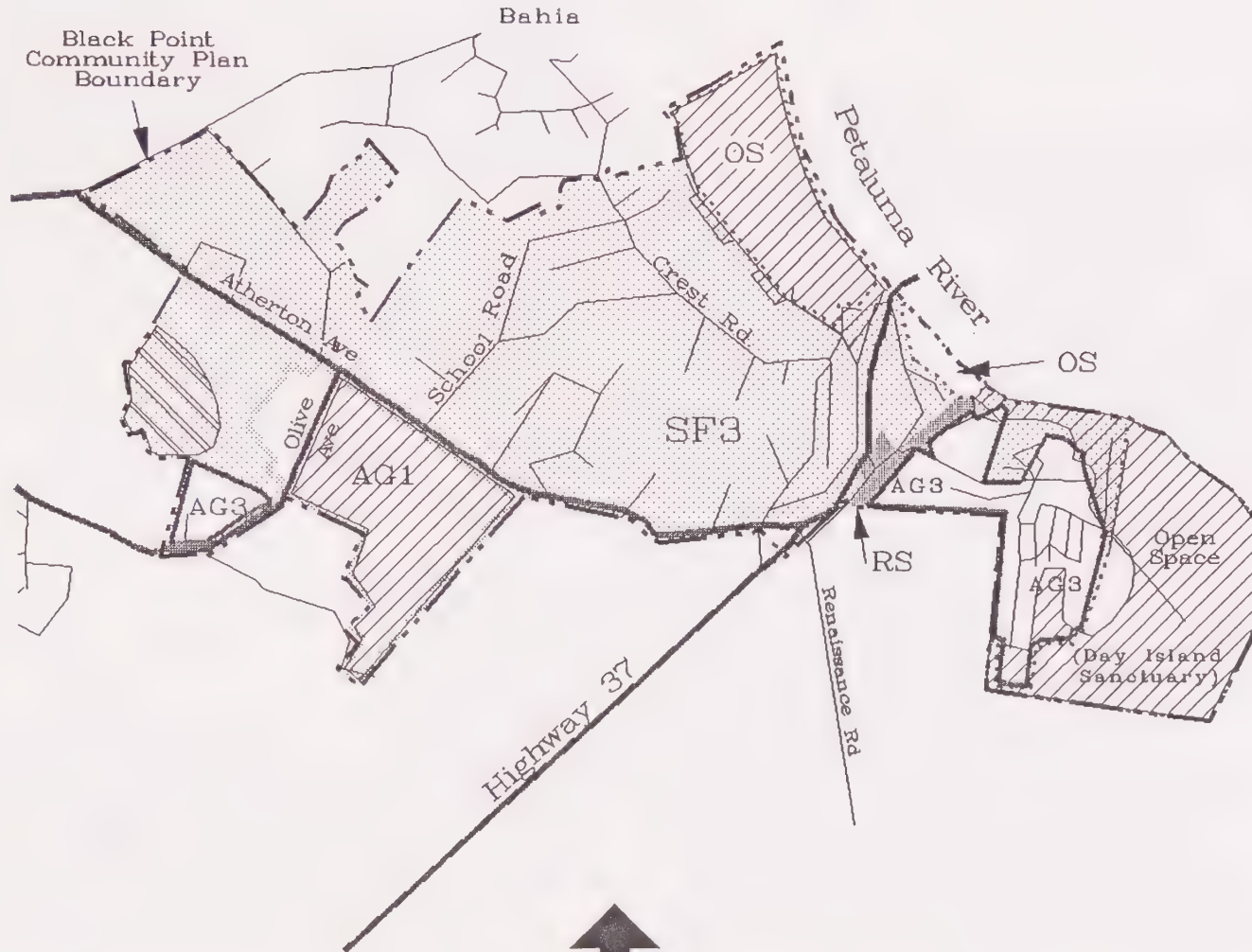
This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

Black Point Land Use Policy Map

Land Use Policy 1991

-  **SF3** Single Family
(1 unit/ 1-5 Acres)
-  **RS** Commercial
Residential
(1 unit/1 to 5 acres)
(F.A.R. = 0.1 to 0.3)
-  **AG3** Agriculture
(1 unit/2-10 Acres)
-  **AG1** Agriculture
(1 unit/30-60 Acres)
-  **OS** Open Space
-  Bayfront Conservation
Zone Areas
-  Ridge and Upland
Greenbelt Areas

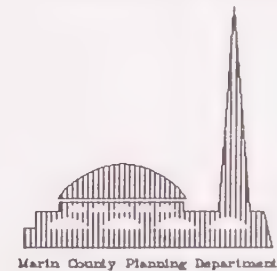
-  Black Point
Community Plan
Boundary
-  Major Roads
-  Residential Roads



0 NORTH 0.5 miles

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

Comments: F.A.R. = Floor Area Ratio
Source: Assessor's Parcel Book Zoning
Overlays as of January 1991

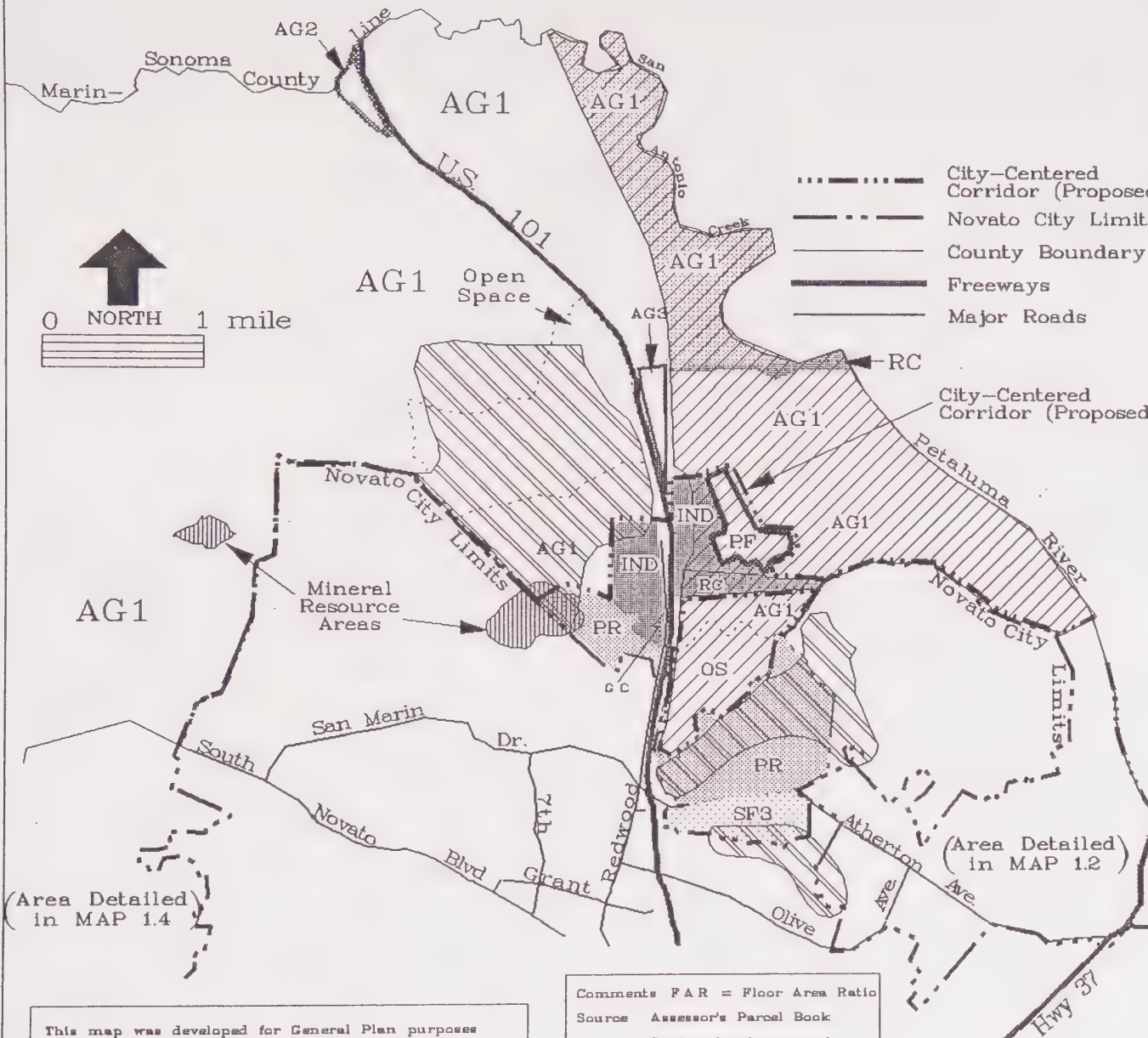


MAP 13 North Novato Land Use Policy Map

Land Use Policy 1991

	Single Family (1 unit/1-5 acres)	SF3
	Planned Residential (1 unit/1-10 acres)	PR
	General Commercial (F.A.R. = 0.10 to 0.20)	GC
	Recreational Commercial (F.A.R. = 0.01 to 0.03)	RC
	Industrial (F.A.R. = 0.04 to 0.35)	IND
	Agriculture (1 unit/2-10 acres)	AG3
	Agriculture (1 unit/10-30 acres)	AG2
	Agriculture and Conservation (1 unit/30-60 acres)	AG1
	Public Facility - Marin County Airport	PF
	Open Space	OS
	Mineral Resource Area	
	Bayfront Conservation Zone Overlay	
	Ridge and Upland Greenbelt Areas	
	Landfill Site	

- City-Centered Corridor (Proposed)
- Novato City Limits
- County Boundary
- Freeways
- Major Roads



(Area Detailed in MAP 1.4)








(Area Detailed in MAP 1.2)





This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

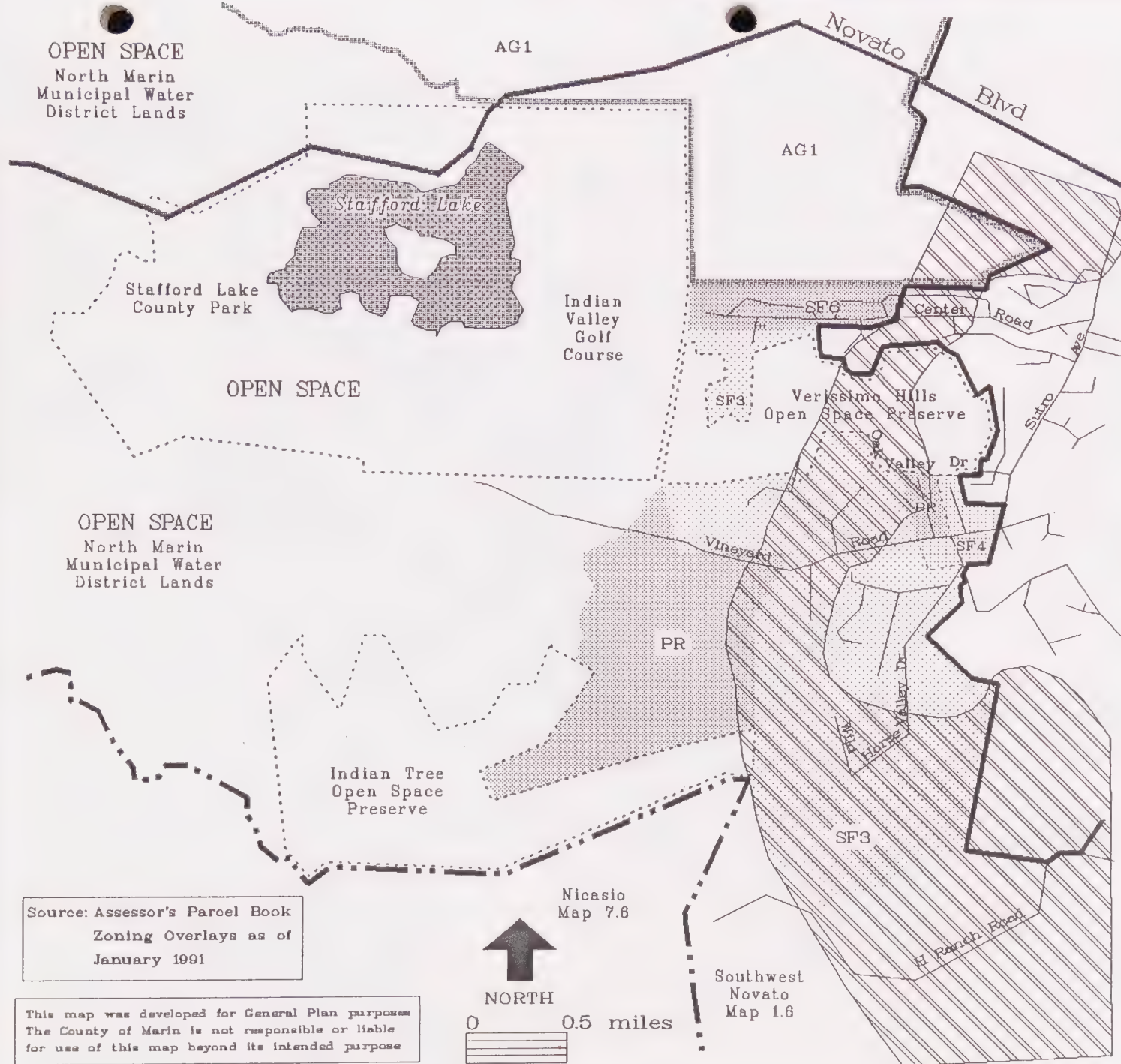
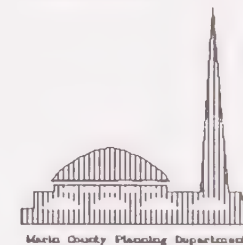
Comments: F.A.R. = Floor Area Ratio
Source: Assessor's Parcel Book
Zoning Overlays as of January 1991

MAP 1.4 West Novato Land Use Policy Map

Land Use Policy 1991

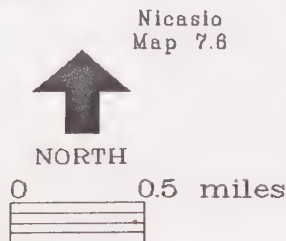
-  SF6 Single Family (2-4 units/acre)
-  SF4 Single Family (1-2 units/acre)
-  SF3 Single Family (1 unit/1-5 acres)
-  PR Planned Residential (1 unit/1-10 Acres)
-  AG1 Agriculture (1 unit/30-60 acres)
-  Open Space
-  Ridge and Upland Greenbelt Areas

-  City Boundary
-  Community Plan Area
-  Major Roads
-  Residential Roads



Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

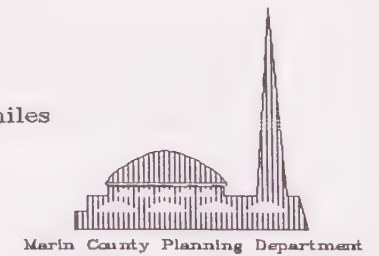


MAP 1.5 Indian Valley Land Use Policy Map






This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.




Source Assessor's Parcel Book
Zoning Overlays as of January 1991



MAP 1 Southwest Novato Land Use Policy Map

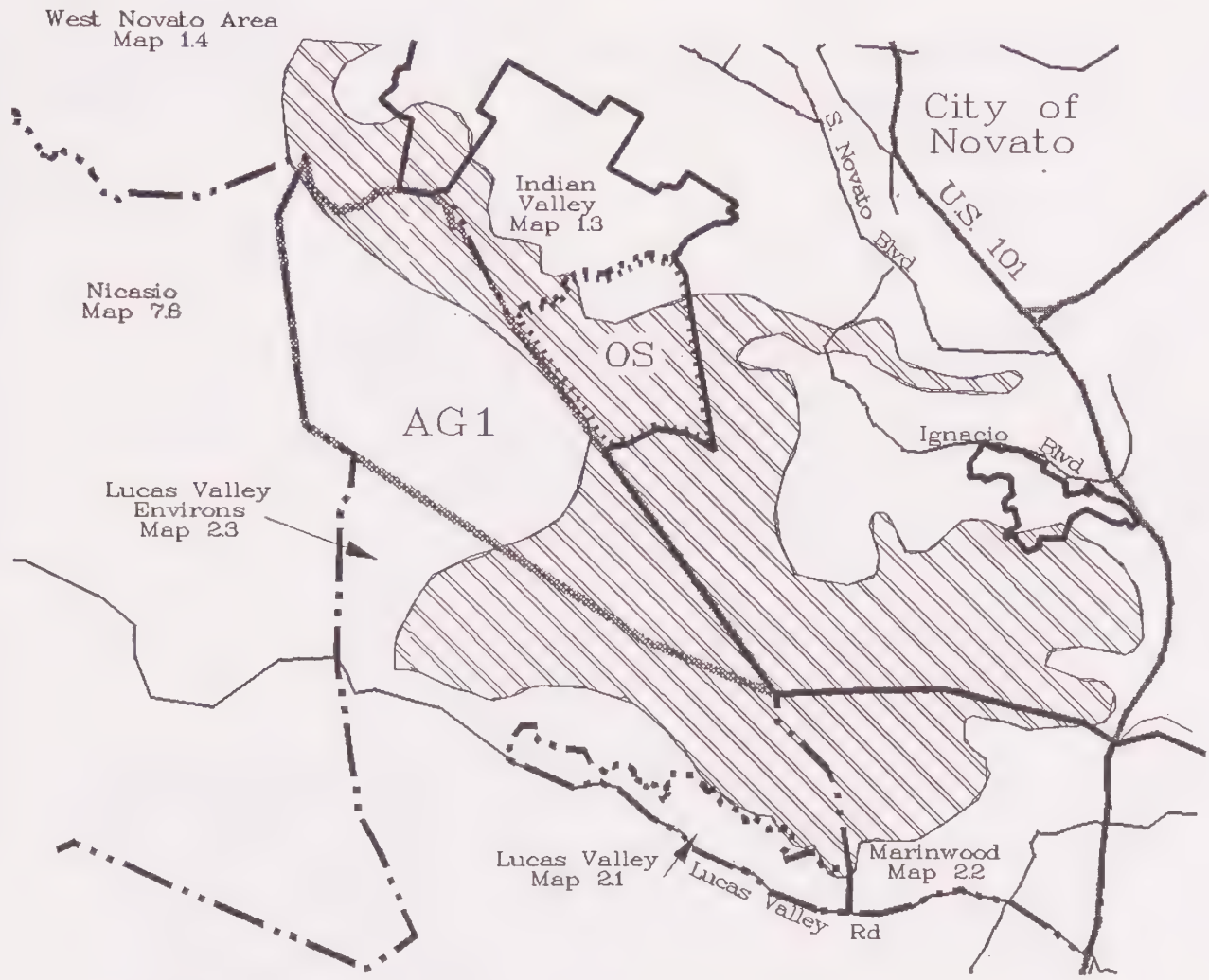
Land Use Policy 1991

-  Agricultural (1 unit/30-60 acres) AG1
-  Open Space OS
-  Ridge and Upland Greenbelt Areas

-  Community Boundaries
-  Novato City Boundary
-  Major Roads

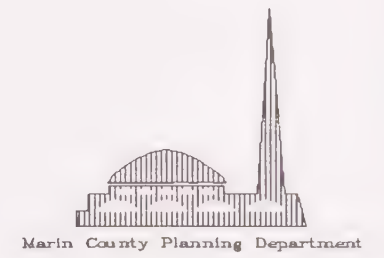


0 1 mile








Source:
Assessors Parcel Book Zoning
Overlays as of January 1991




This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

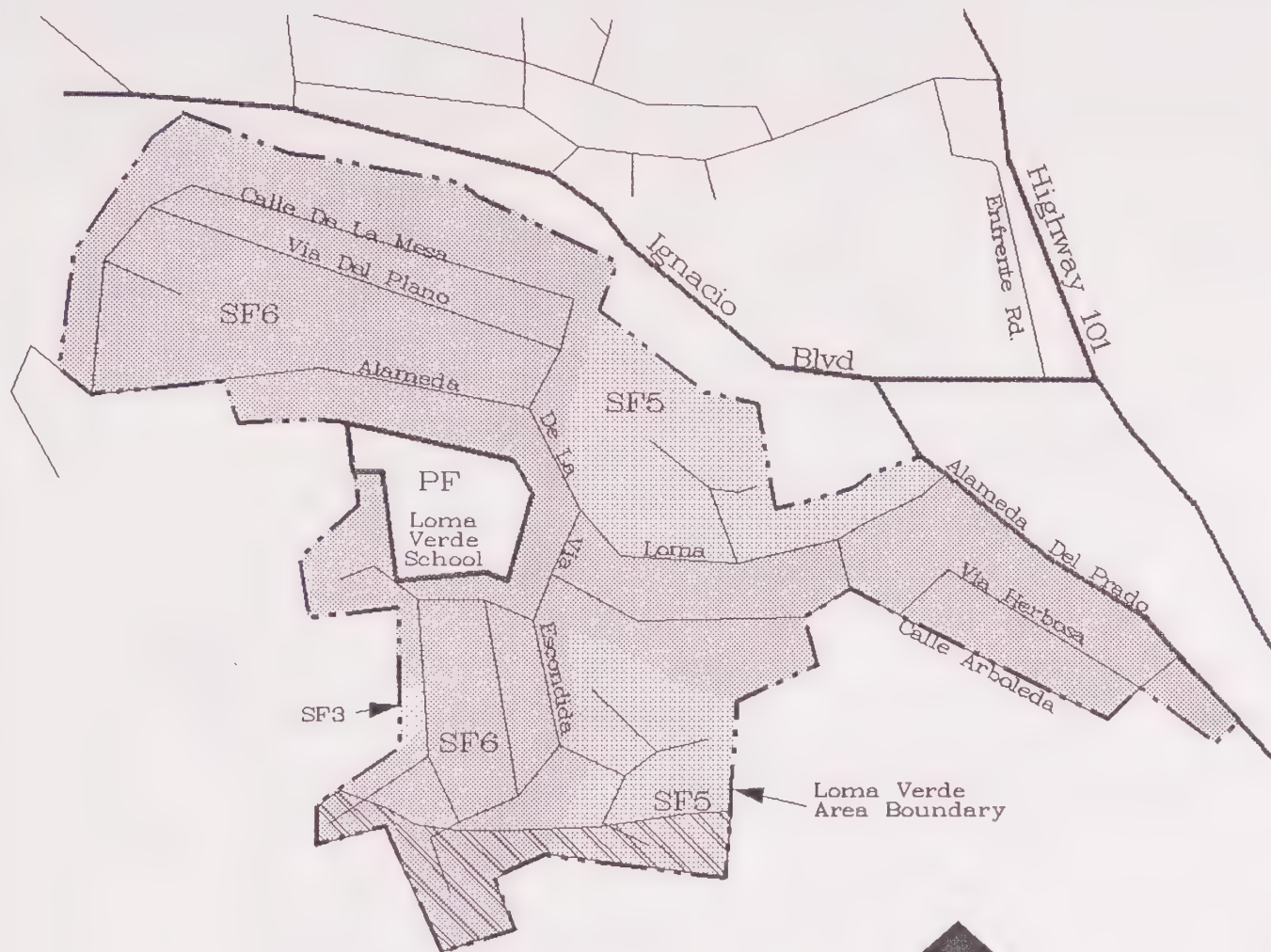


MAP 1.7 Loma Verde Area Land Use Policy Map

Land Use Policy 1991

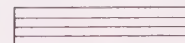
-  Single Family (4-7 units/acre) SF6
-  Single Family (2-4 units/acre) SF5
-  Single Family (1 unit/1-5 acres) SF3
-  Public Facility PF
-  Ridge and Upland Greenbelt Areas

-  Loma Verde Area Boundary
-  Major Roads
-  Residential Roads



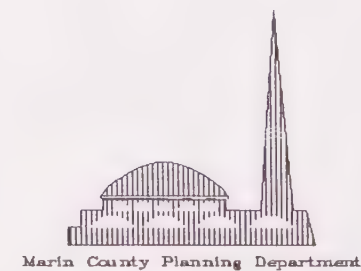
NORTH

0 0.15 miles



Source
Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



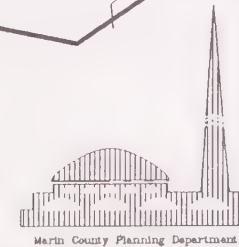
MAP 2.0

Planning Area 2 (Las Gallinas Valley)

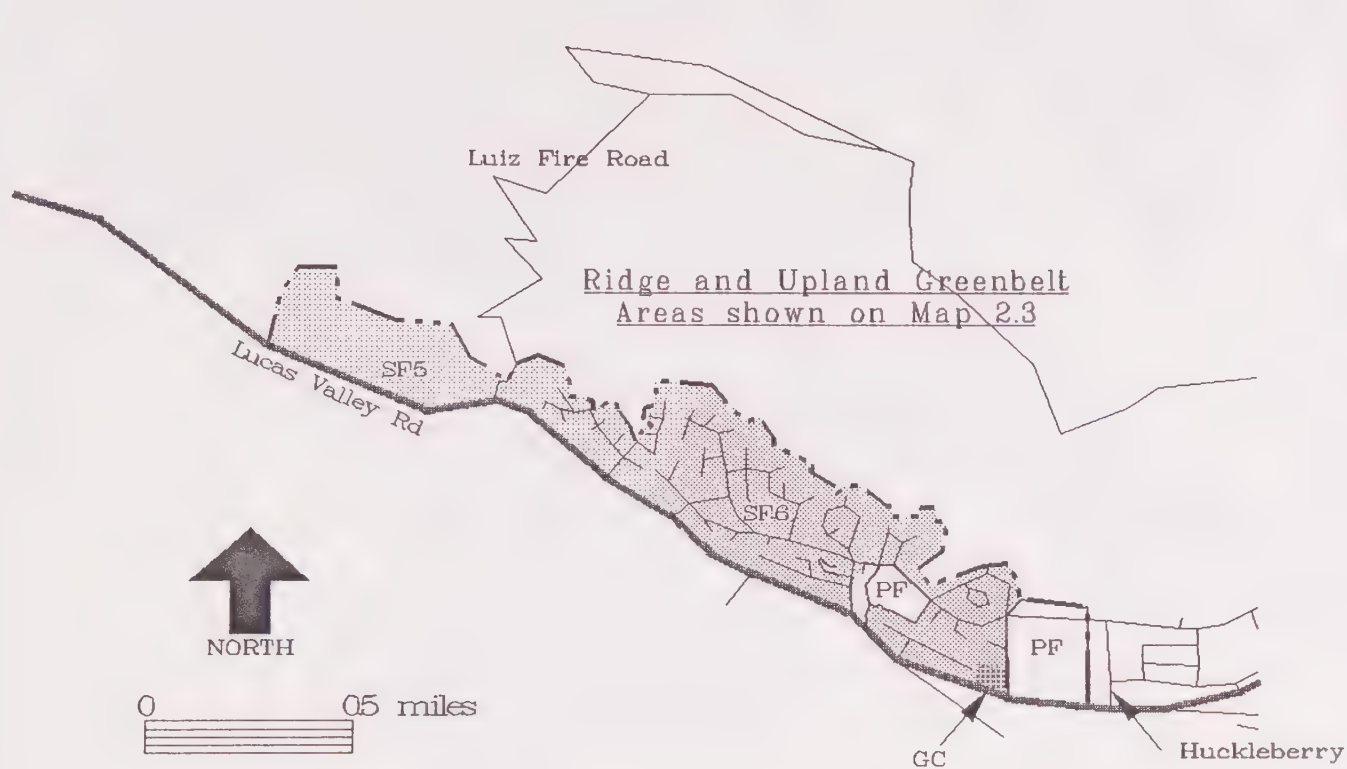
Land Use Map Index



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose



MAP 2.1
Lucas Valley Land Use Policy Map



NORTH

0 0.5 miles

Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991

F.A.R. = Floor Area Ratio

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

Land Use Policy 1991

SF6 Single Family
(4 to 7 units/acre)

SF5 Single Family
(2-4 units/acre)

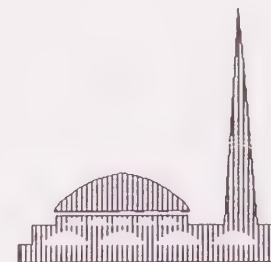
GC General Commercial
(F.A.R. = 0.1 to 0.2)

PF Public Facility

Community Boundary

Major Roads

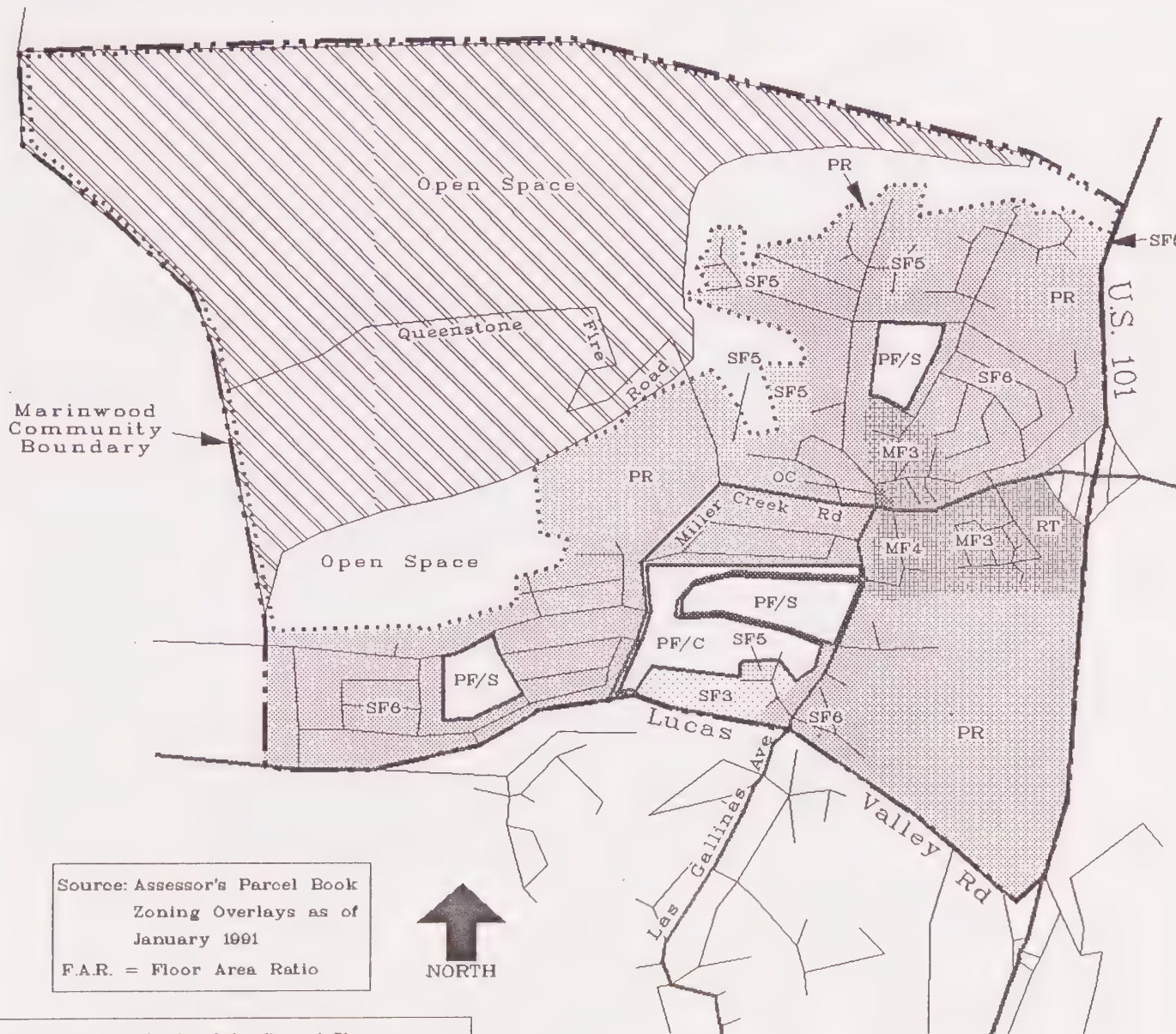
Residential Roads
















Marin County Planning Department

Marinwood Land Use Policy Map

Land Use Policy 1991



-  SF6 Single Family 6
(4 to 7 units/acre)
-  SF5 Single Family 5
(2 to 4 units/acre)
-  SF3 Single Family 3
(1 unit/1-5 acres)
-  MF4 Multi-Family 4
(11-30 units/acre)
-  MF3 Multi-Family 3
(5-10 units/acre)
-  PR Planned Residential
(1 unit/1-10 acres)
-  OC Office Commercial
(F.A.R. = 0.1 to 0.2)
-  RT Retail Commercial
(F.A.R. = 0.1 to 0.4)
-  PF/S Public Facility/
School Site
-  PF/C Public Facility/
Community Center
-  OS Open Space
-  Ridge and Upland
Greenbelt Areas

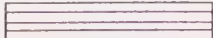
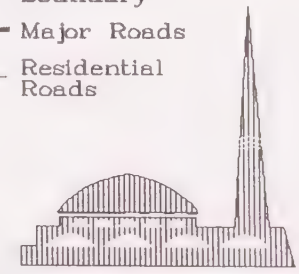
-  Community Boundary
-  Major Roads
-  Residential Roads

Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991
F.A.R. = Floor Area Ratio



This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

0 0.33 miles










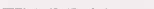



Marin County Planning Department

MAP 2.3

Lucas Valley Environs Land Use Policy Map

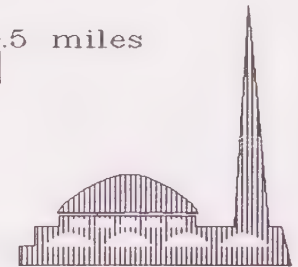
Land Use Policy 1991

-  PR Planned Residential
(1 unit/1 to 10 acre)
-  AG3 Agriculture
(1 unit/2 to 10 acres)
-  AG2 Agriculture
(1 unit/10 to 30 acres)
-  AG1 Agriculture
(1 unit/30 to 60 acres)
-  Open Space
-  Ridge and Upland
Greenbelt Areas

-  Community Boundaries
-  City Boundaries
-  Major Roads
-  Residential Roads



0 0.5 miles



Southwest Novato
Map 1.6

Nicasio
Map 7.10

See maps 1.6 and 2.2 for
continuation of Ridge and Upland
Greenbelt Areas

Marinwood
Map 2.2

Open Space

Lucas Valley
Map 2.1

Lucas Valley Rd

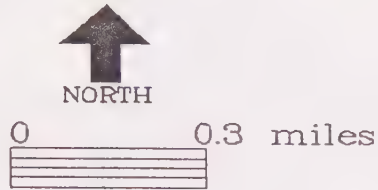
Sleepy Hollow
Map 4.1

San Geronimo
Map 7.11

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

Source: Assessors Parcel Book Zoning
Overlays as of January 1991

Los Ranchitos Land Use Policy Map

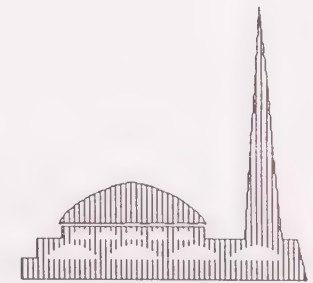


Land Use Policy 1991

-  Single Family (1 unit/1-5 acres) SF3
-  Planned Residential (1 unit/1-10 acres) PR
-  Ridge and Upland Greenbelt Areas
-  San Rafael City Boundaries
-  Major Roads
-  Residential Roads

Comments: FAR = Floor Area Ratio
Source: Assessor's Parcel Book Zoning
Overlays as of January 1991

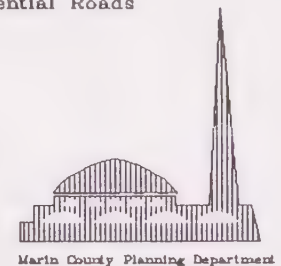
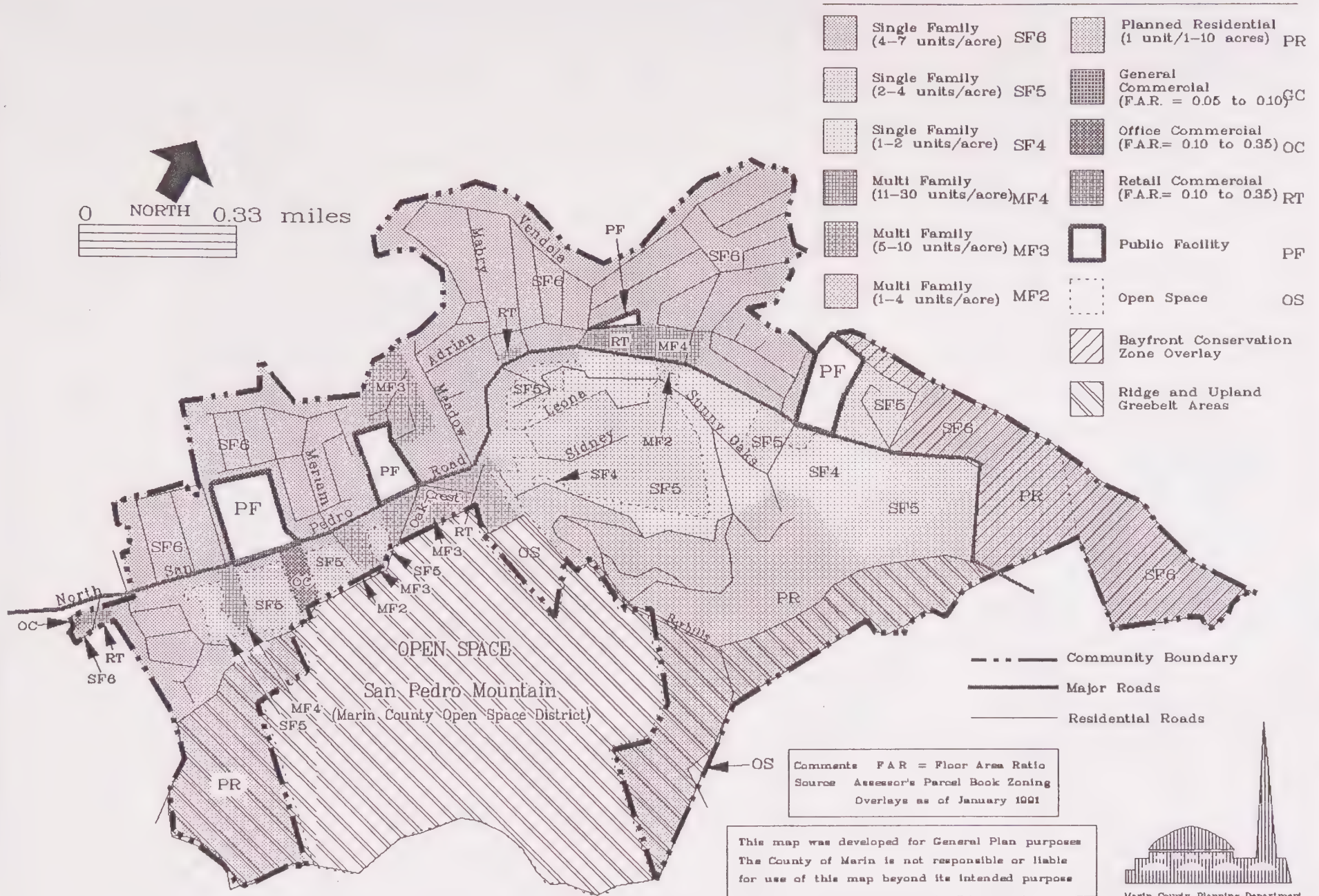
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



Marin County Planning Department

MAP 2.5 Santa Venetia Land Use Policy Map

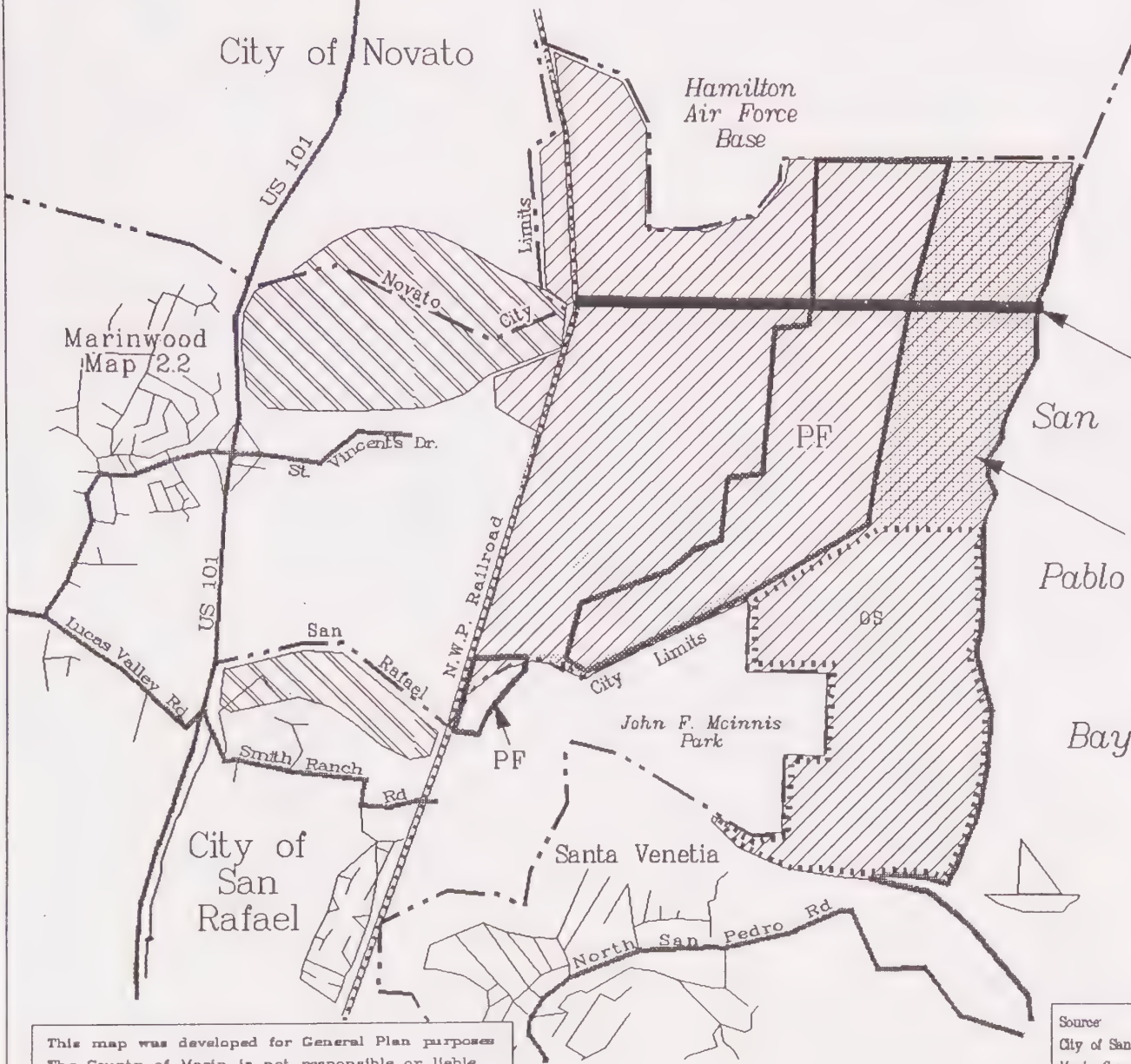
Land Use Policy 1991



MAP 2.6 St. Vincent's / Silveira Land Use Policy Map

Land Use Policy 1991

-  Open Space OS
-  Tidelands Subject to State Lands jurisdiction
-  Ridge and Upland Greenbelt Areas
-  Bayfront Conservation Zone
-  Public Facility PF







San Rafael Sphere of Influence Boundary

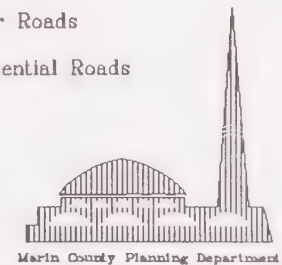
Tidelands



0 0.5 miles

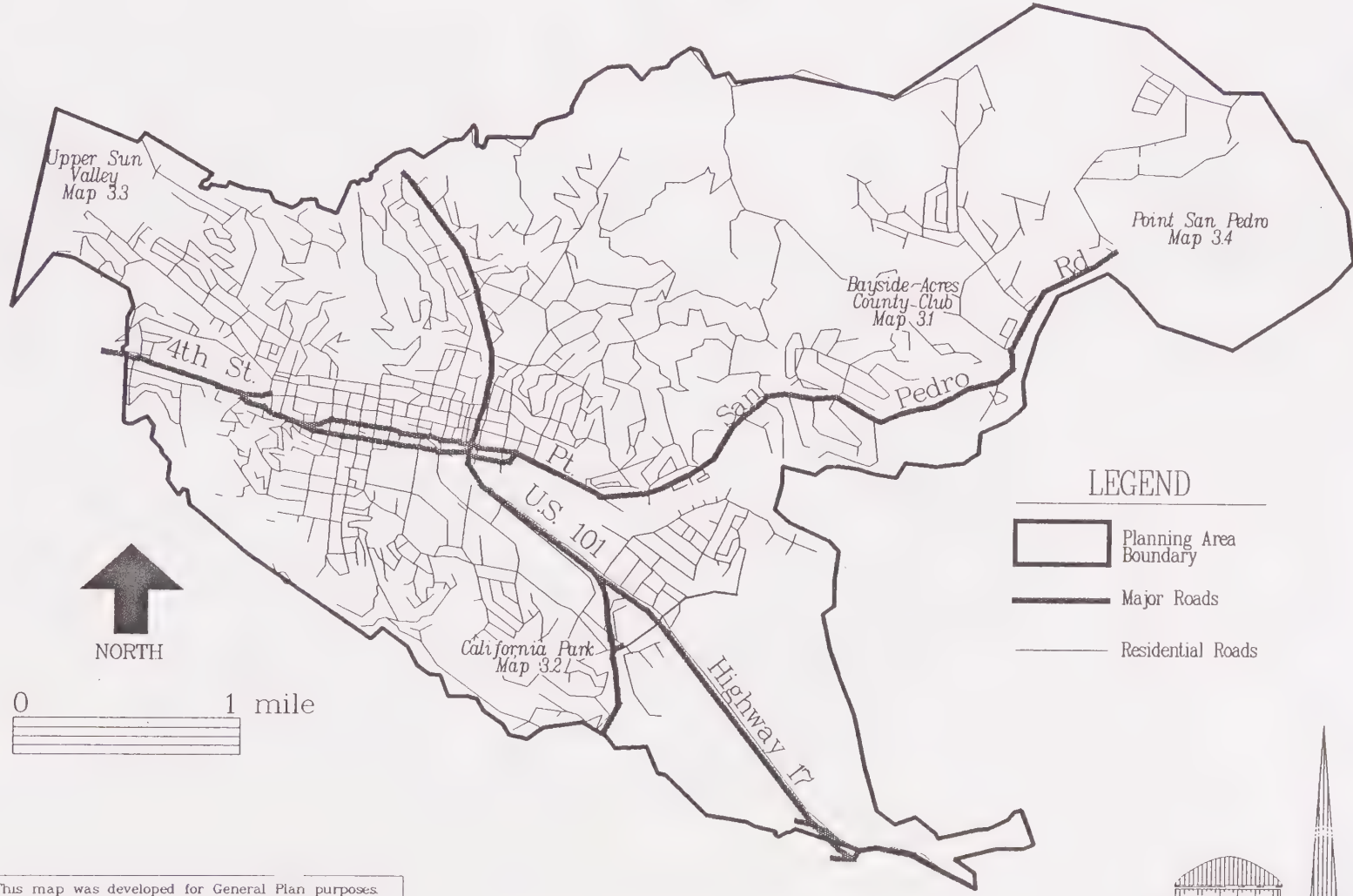
-  Coastline
-  City Boundary
-  Major Roads
-  Residential Roads

Source:
City of San Rafael General Plan 2000 and
Marin County Planning Dept. Assessor's Parcel
Book Zoning Overlays as January 1991

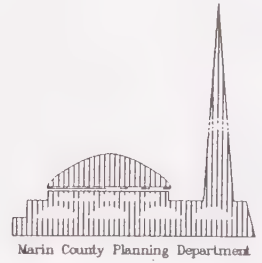


This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

MAP 3.0
Planning Area 3 (San Rafael Basin)
Land Use Map Index



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



MAP 3.1 Bayside Acres and Country Club Land Use Policy Map

Land Use Policy 1991

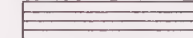
	Single Family (4-7 units/acre)	SF6
	Single Family (1-2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Recreational Commercial (F.A.R. = 0.005 to 0.01)	RC
	Bayfront Conservation Zone	

- Unincorporated
Community Boundary
- Coastline
- Major Roads
- Residential Roads



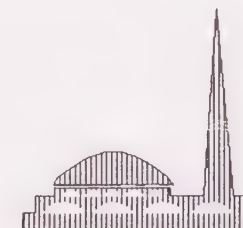
NORTH

0 0.30 miles



Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose



Marin County Planning Department

Bayside Acres
Community
Boundary

Country Club
Community
Boundary

City of
San Rafael

SF3

SF6

SF3

SF4

SF6

Point

Canal

Canal St

Blvd

Blvd

Blvd

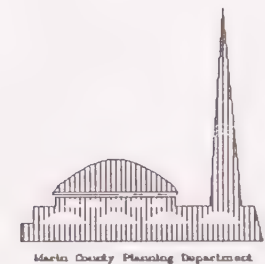
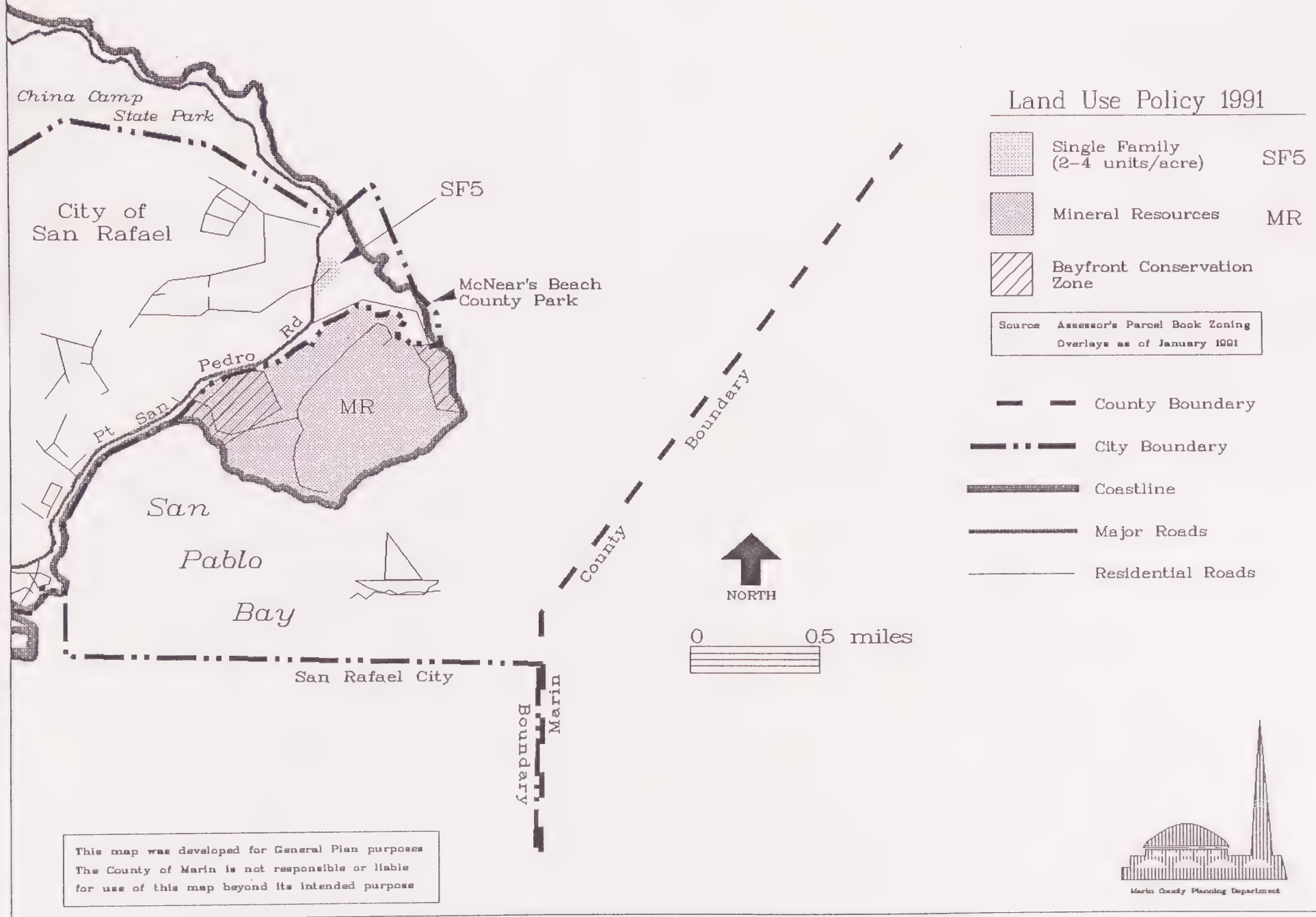
Blvd

Blvd

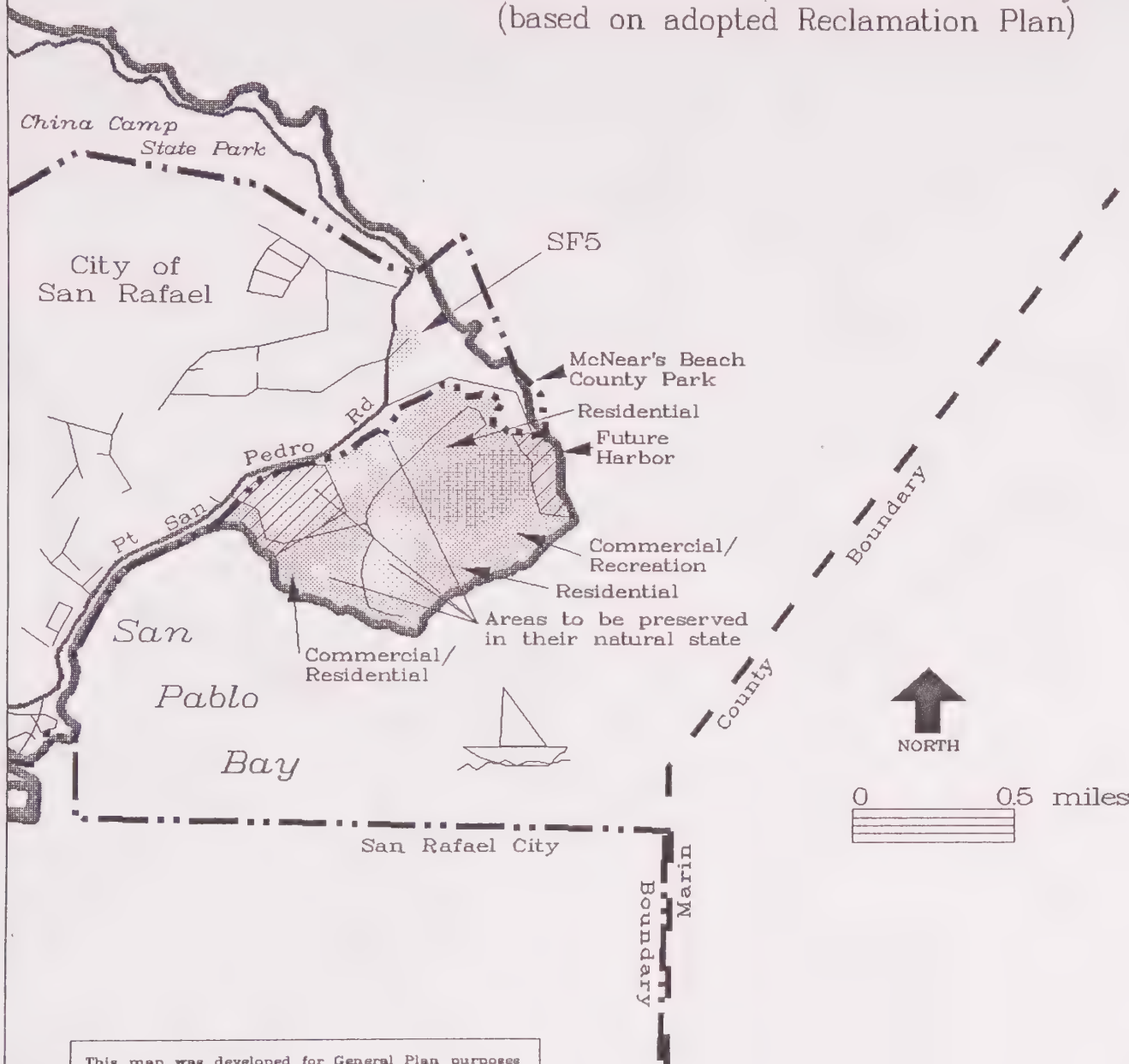
U.S. 101








MAP 3. Point San Pedro Land Use Policy Map






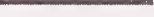

MAP 3.2a Point San Pedro Land Use Policy Map (based on adopted Reclamation Plan)

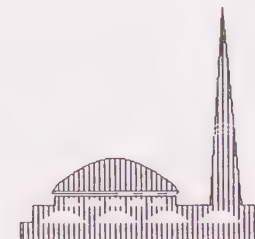


Land Use Policy 1991

-  Single Family (2-4 units/acre) SF5
-  Mixed Use Areas Commercial, Residential and Mixed Use as shown
-  Future Harbor
-  Future Open Space Areas
-  Bayfront Conservation Zone

Source McNear's Quarry Reclamation Plan

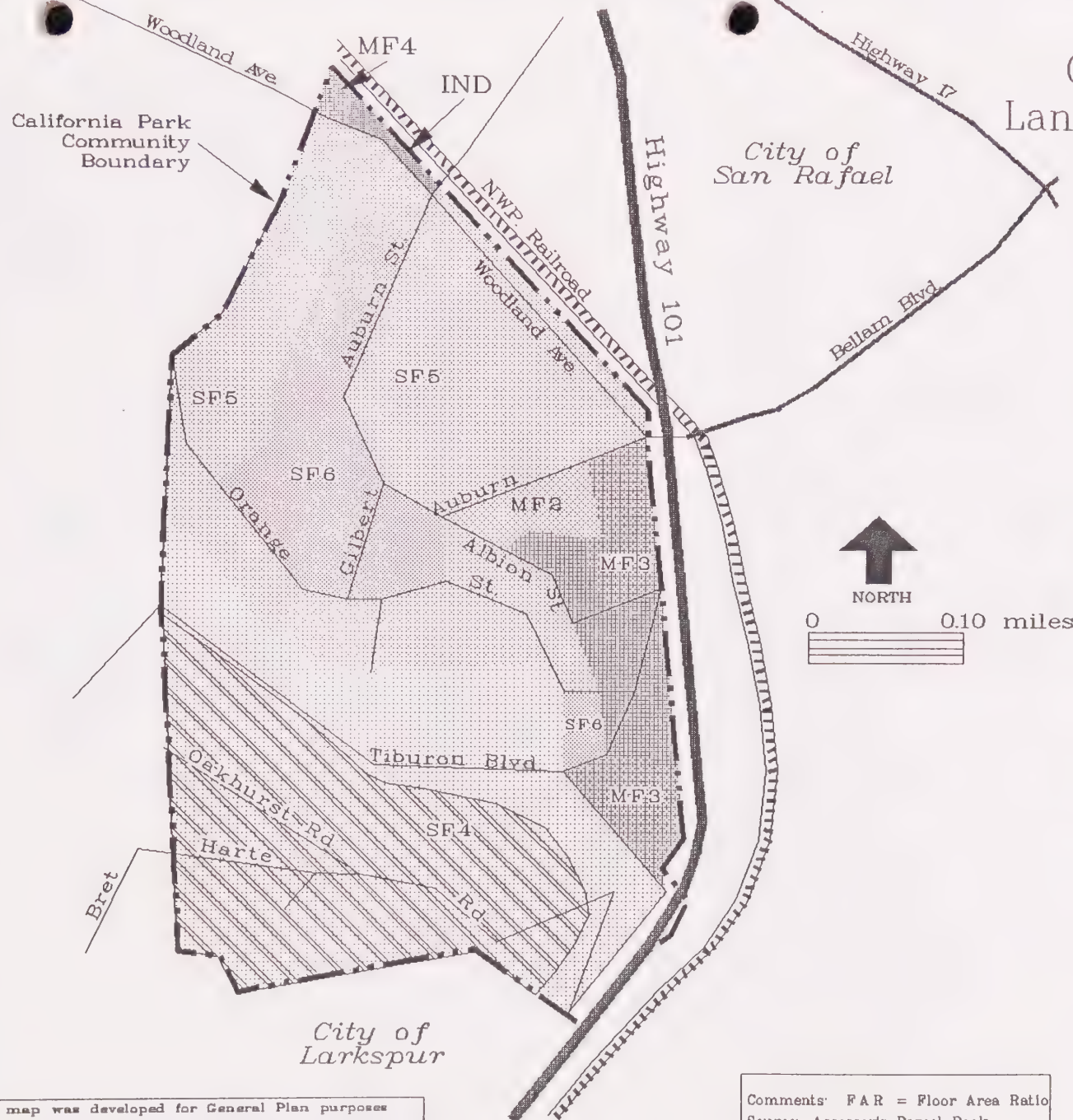
-  County Boundary
-  City Boundary
-  Coastline
-  Major Roads
-  Residential Roads



Marin County Planning Department

This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

MAP 3.3 California Park Land Use Policy Map



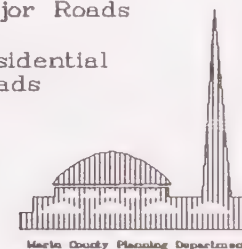
Land Use Policy 1991

	Single Family (4-7 units/acre)	SF6
	Single Family (2-4 units/acre)	SF5
	Single Family (1-2 units/acre)	SF4
	Multi Family (11-30 units/acre)	MF4
	Multi Family (5-10 units/acre)	MF3
	Multi Family (11 to 4 units/acre)	MF2
	Industrial (F.A.R. = 0.10 to 0.33)	IND
	Ridge and Upland Greenbelt Areas	

- Community Boundary
- Major Roads
- Residential Roads





Comments: FAR = Floor Area Ratio
Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991




This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

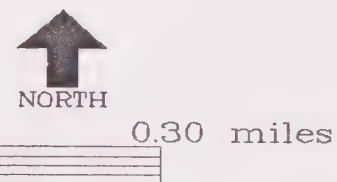
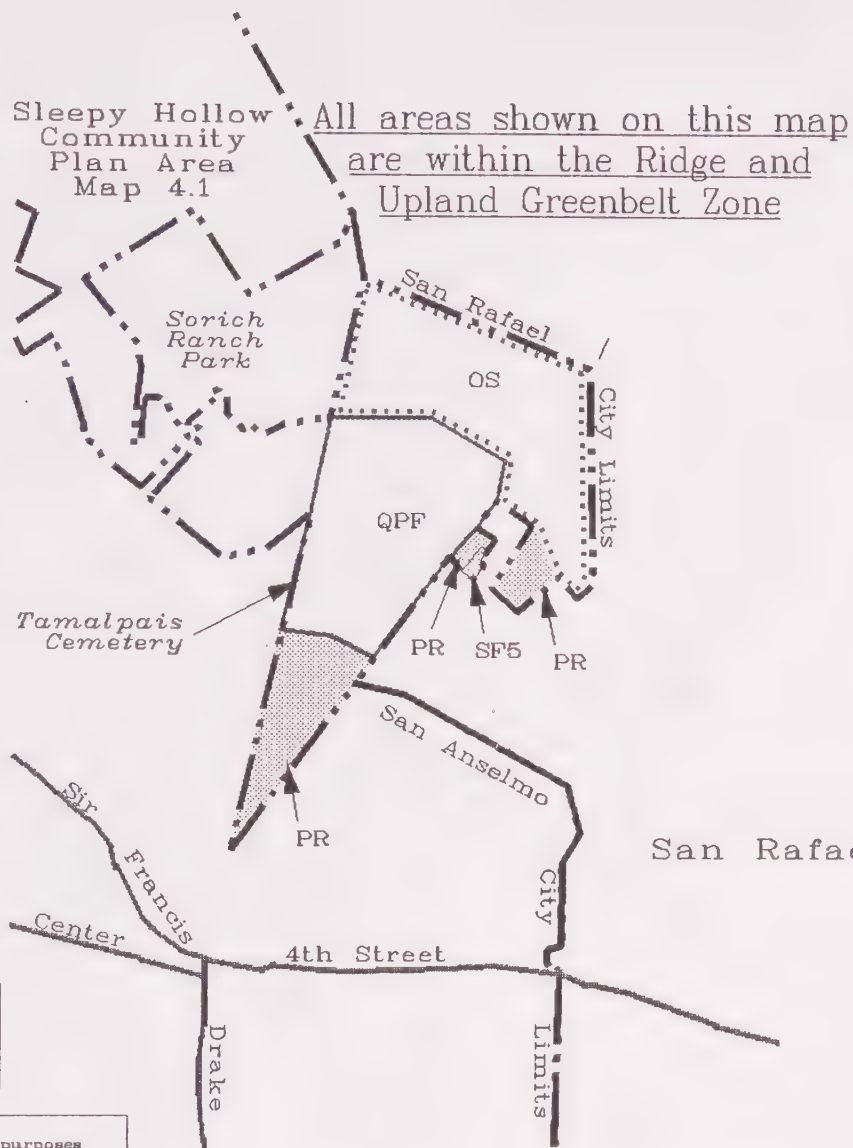


MAP 3.4 Upper Sun Valley Area Land Use Policy Map

Land Use Policy 1991

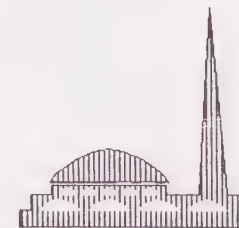
	Single Family (2-4 units/acre)	SF5
	Planned Residential (1 unit/1-10 acres)	PR
	Quasi-Public Facility	QPF
	Open Space	OS

	City Boundaries
	Major Roads
	Residential Roads



Source Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose






Marin County Planning Department

MAP 4.0
Planning Area 4 (Upper Ross Valley)
Land Use Map Index



LEGEND

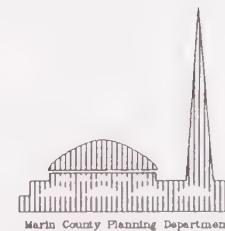
-  Planning Area Boundary
-  Major Roads
-  Residential Roads



0 1 mile















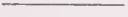
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

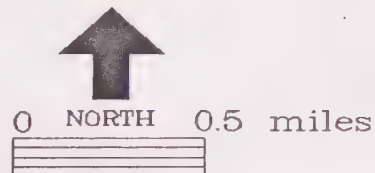
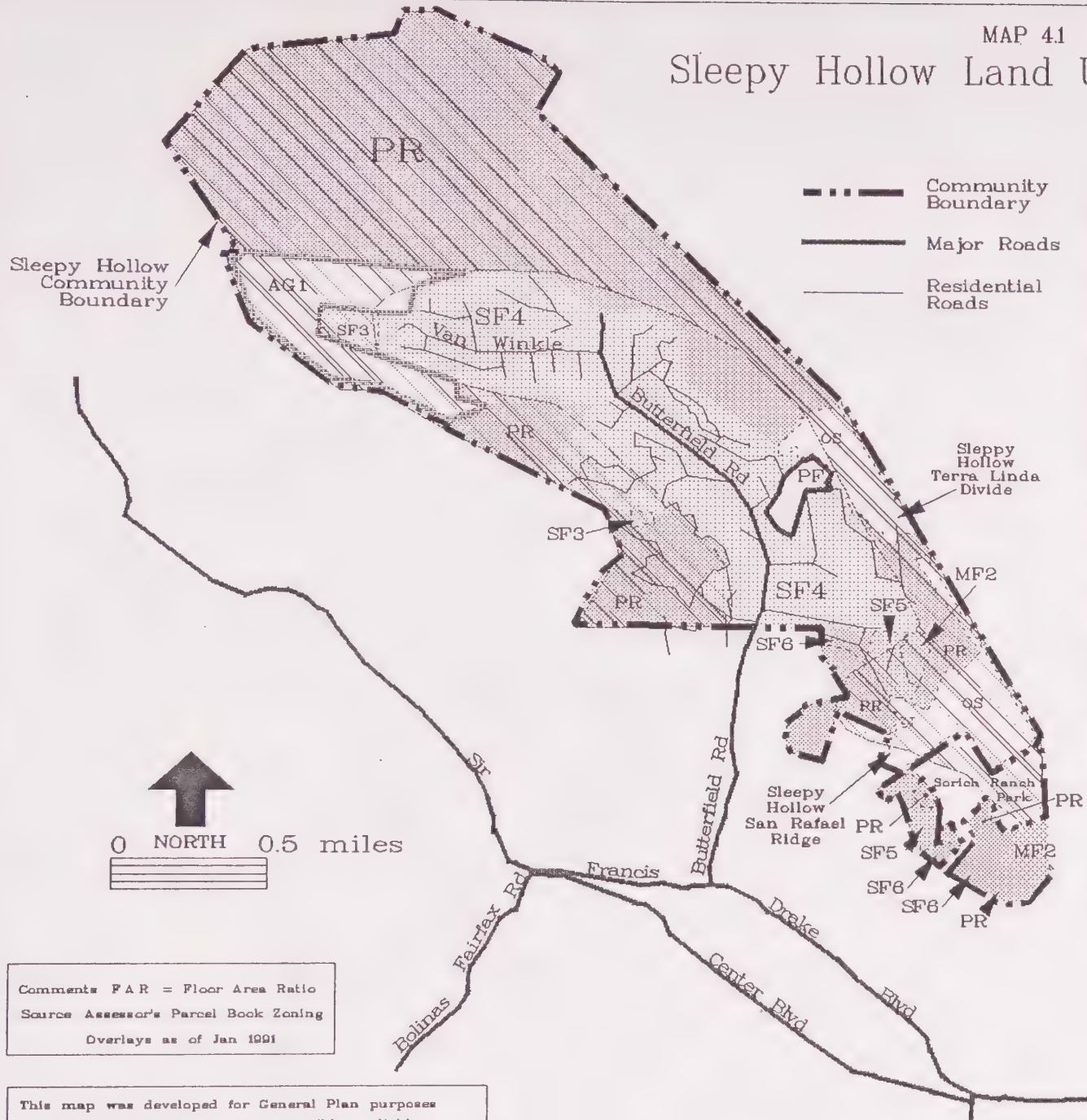


MAP 4.1 Sleepy Hollow Land Use Policy Map

Land Use Policy 1991

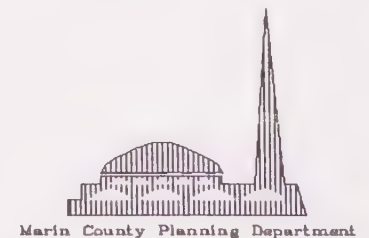
	Single Family (4-7 units/acre)	SF6
	Single Family (2-4 units/acre)	SF5
	Single Family (1-2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Multi Family (11 to 4 units/acre)	MF2
	Planned Residential (1 unit/1-10 acres)	PR
	Public Facility	PF
	Agricultural (1 unit/30-60 acres)	AG1
	Open Space	OS
	Ridge and Upland Greenbelt Areas	

-  Community Boundary
-  Major Roads
-  Residential Roads



Comments: PAR = Floor Area Ratio
Source: Assessor's Parcel Book Zoning
Overlays as of Jan 1991


This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.




Southwest of Fairfax Land Use Policy Map


Land Use Policy 1991

 Single Family (4-7 units/acre) SF6


 Planned Residential (1 unit/1-10 acres) PR

 Recreational Commercial (F.A.R. = 0.01 to 0.05) RC

 Open Space

 Ridge and Upland Greenbelt Areas

 City Limits

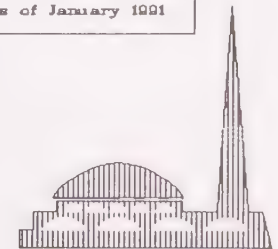
 Major Roads

 Residential Roads

Comments: F.A.R. = Floor Area Ratio
Source: Assessor's Parcel Book Zoning
Overlays as of January 1991



0 0.25 miles



OPEN SPACE

Marin Municipal
Water District Lands

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

Marin
Municipal
Water
District Lands

Pine
Mountain

OPEN SPACE

Cascade
Canyon Park

Town of
Fairfax

Canyon Rd.

Tunnel
Roads

Bosque Ave.

Fairfax-Bolinas Rd.

Six Oaks Rd.

OPEN SPACE

RC

PR

PR

PR

SF6

PR

MAP 4.3 West of Fairfax Land Use Policy Map

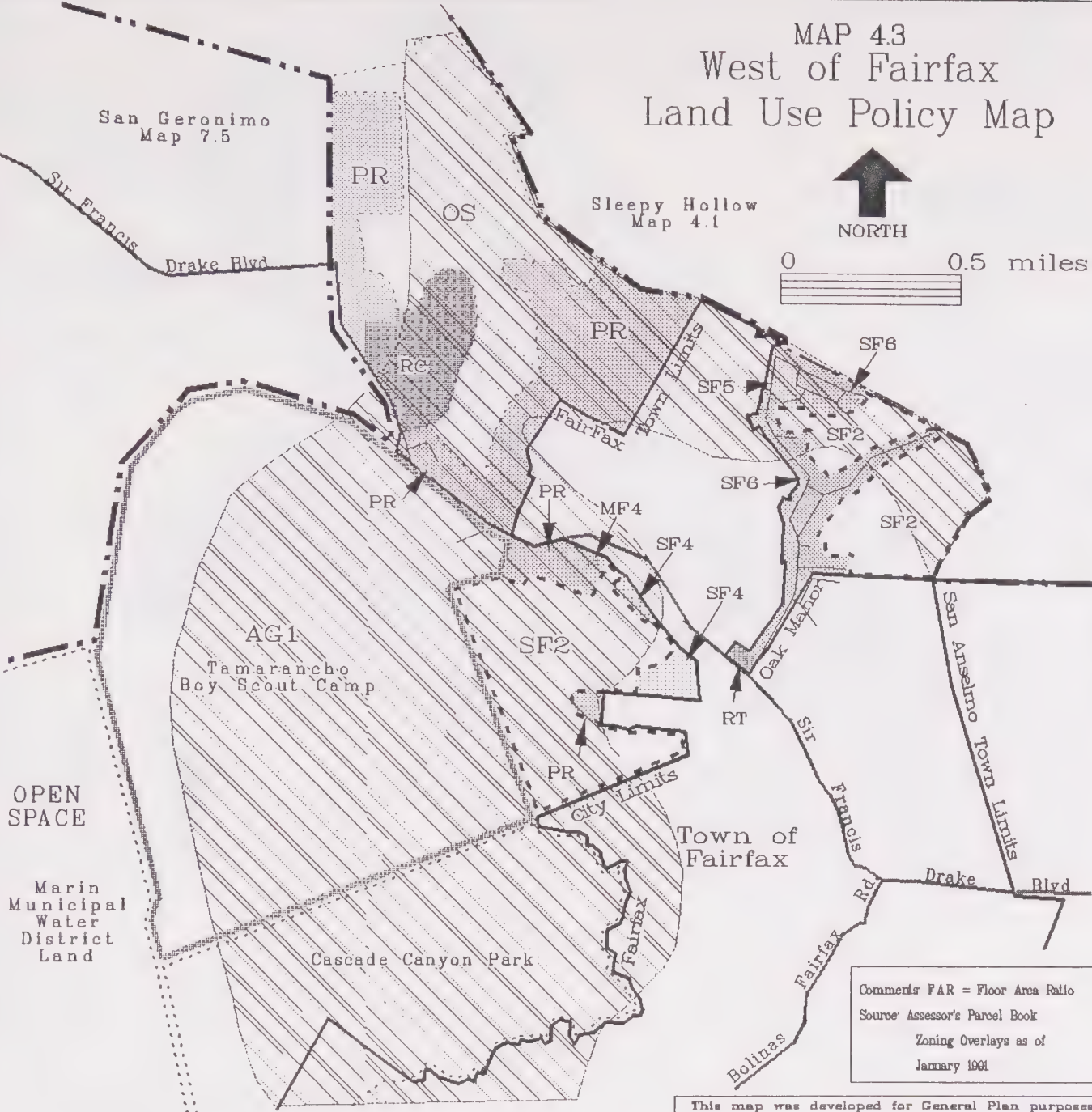
Land Use Policy 1991

	Single Family (4-7 units/acre)	SF6
	Single Family (2-4 units/acre)	SF5
	Single Family (1-2 units/acre)	SF4
	Single Family (1 unit/5-20 acres)	SF2
	Multi Family (11-30 units/acre)	MF4
	Planned Residential (1 unit/1-10 acres)	PR
	Retail Commercial (F.A.R. = 0.05 to 0.15)	RT
	Recreational Commercial (F.A.R. = 0.01 to 0.03)	RC
	Agricultural (1 unit/30-60 acres)	AG1
	Open Space	OS
	Ridge and Upland Greenbelt Areas	

- City Limits
- Community Plan Boundary
- Major Roads
- Residential Roads





Comments: FAR = Floor Area Ratio
Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



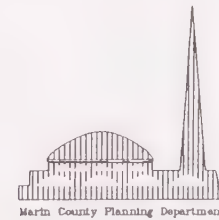
MAP 50
Planning Area 5 (Lower Ross Valley)
Land Use Map Index

LEGEND

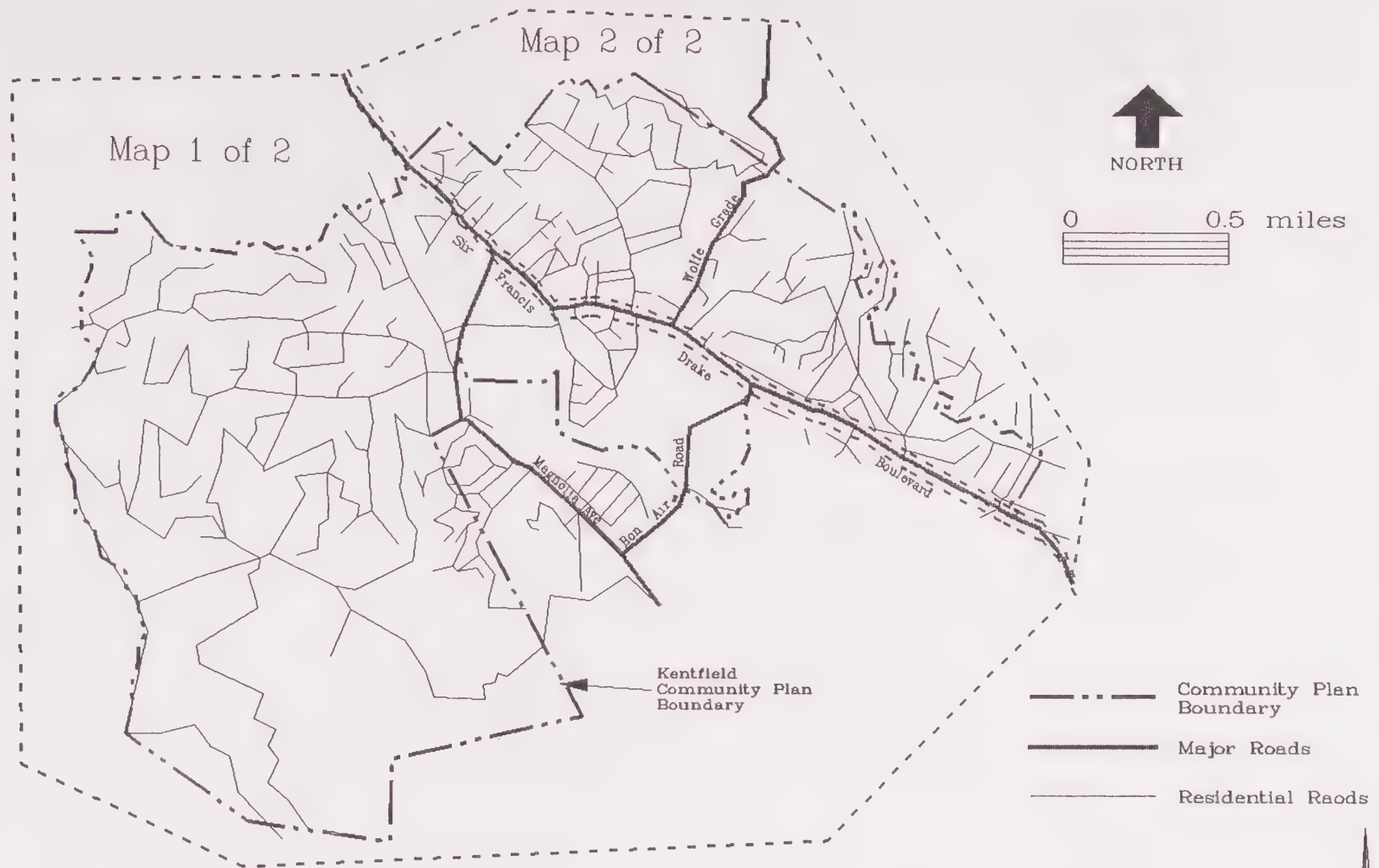
-  Planning Area Boundary
-  Bay Coastline
-  Major Roads
-  Residential Roads



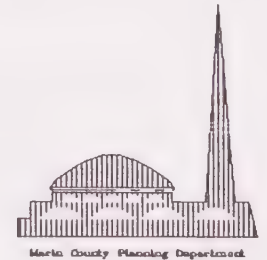
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



MAP 5.1.0
Kentfield Land Use Policy Map Key



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

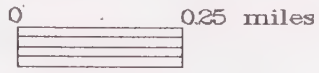


MAP 5.1.1
Kentfield
Land Use Policy Map
(Map 1 of 2)

Land Use Policy 1991		
	Single Family (4-7 units/acre)	SF6
	Single Family (2-4 units/acre)	SF5
	Single Family (1-2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Multi Family (11-30 units/acre)	MF4
	Multi Family (5-10 units/acre)	MF3
	Multi Family (11-4 units/acre)	MF2
	Planned Residential (1 unit/1-10 acres)	PR
	General Commercial (F.A.R. = 0.10 to 0.35)	GC
	Office Commercial (F.A.R. = 0.10 to 0.35)	OC
	Retail Commercial (F.A.R. = 0.10 to 0.35)	RT
	Residential Commercial (F.A.R. = 0.10 to 0.35) (5-10 units/acre)	RS
	Public Facility	PF
	Open Space	OS

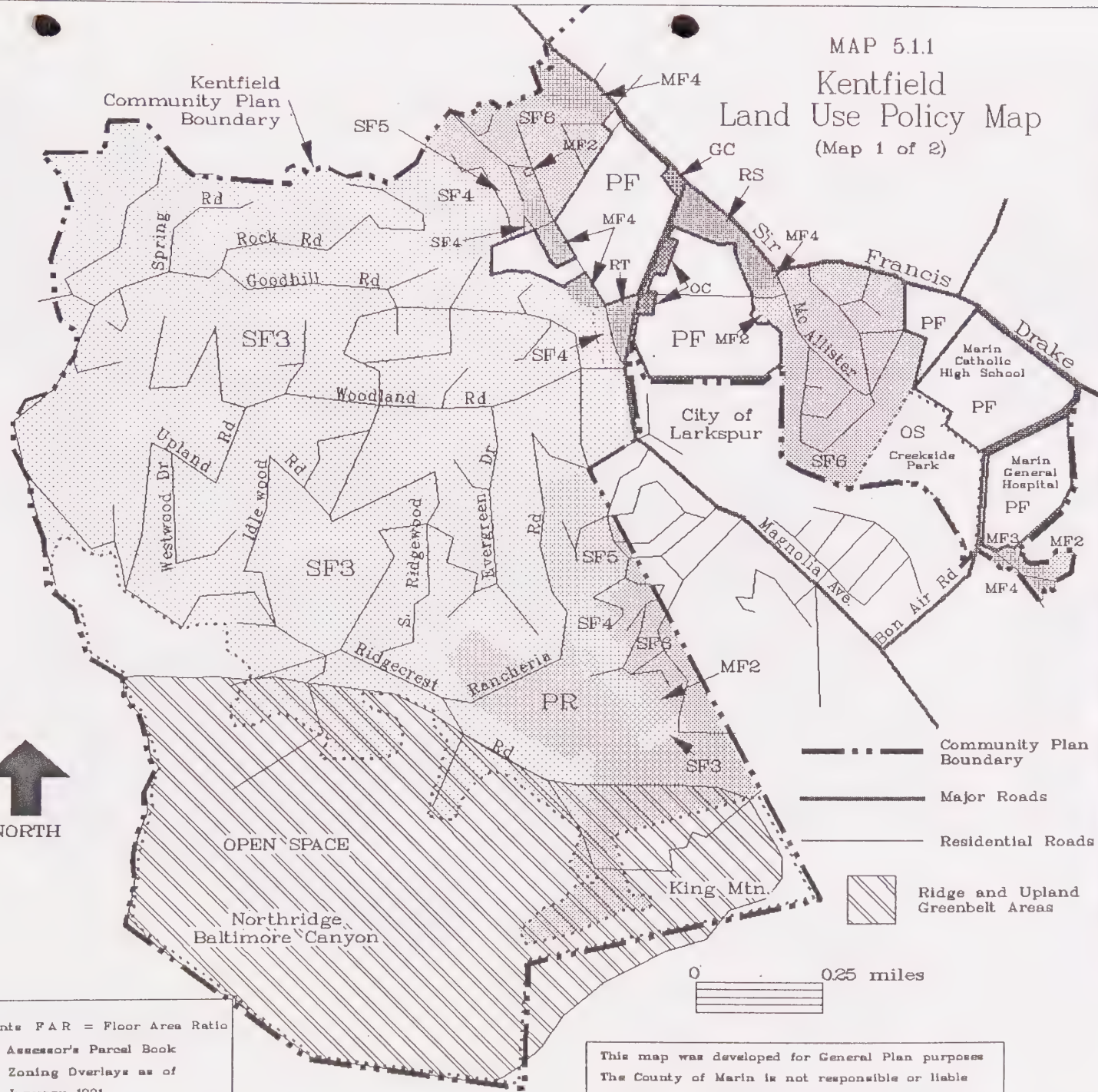


- Community Plan Boundary
- Major Roads
- Residential Roads
- Ridge and Upland Greenbelt Areas



This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

Comments: F.A.R. = Floor Area Ratio
Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991

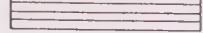


MAP 5.12 Kentfield Land Use Policy Map (Map 2 of 2)



NORTH

0 0.25 miles



- Community Plan Boundary
- Major Roads
- Residential Roads



Ridge and Upland
Greenbelt Areas

Land Use Policy 1991

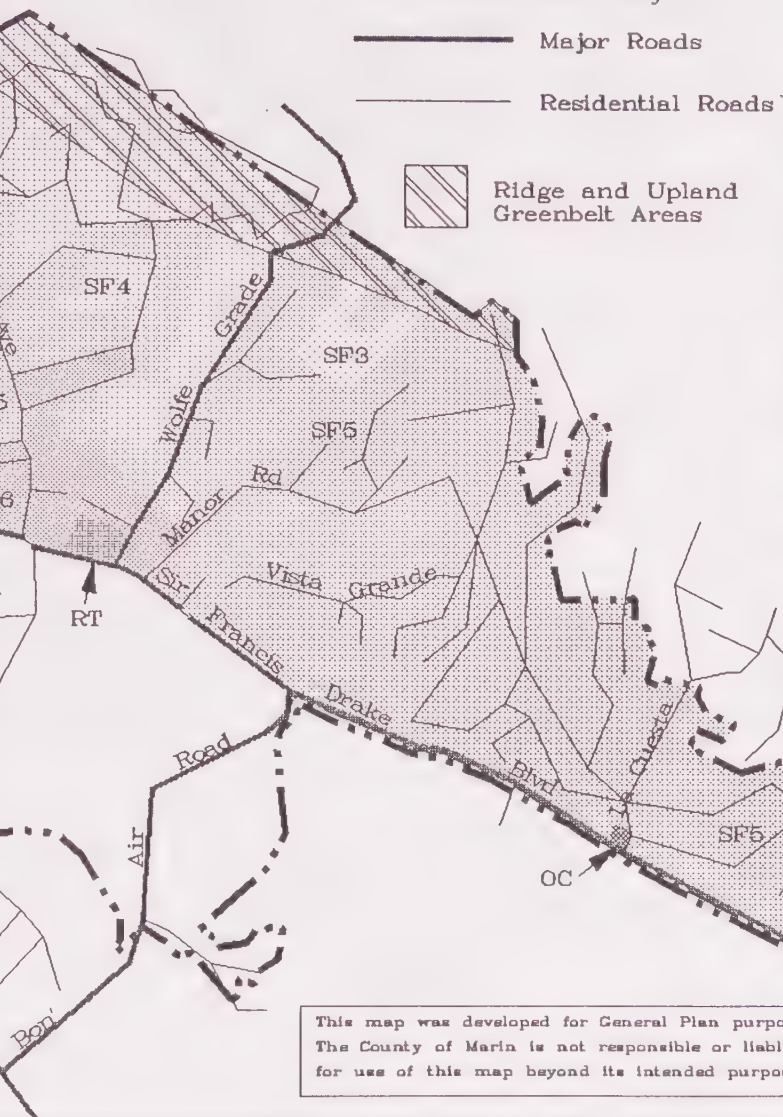
	Single Family (4-7 units/acre)	SF6
	Single Family (2-4 units/acre)	SF5
	Single Family (1-2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Multi Family (11-30 units/acre)	MF4
	Multi Family (5-10 units/acre)	MF3
	Office Commercial (F.A.R.=0.10 to 0.35)	OC
	Retail Commercial (F.A.R.=0.10 to 0.35)	RT
	Public Facility	PF

Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of Jan 1991

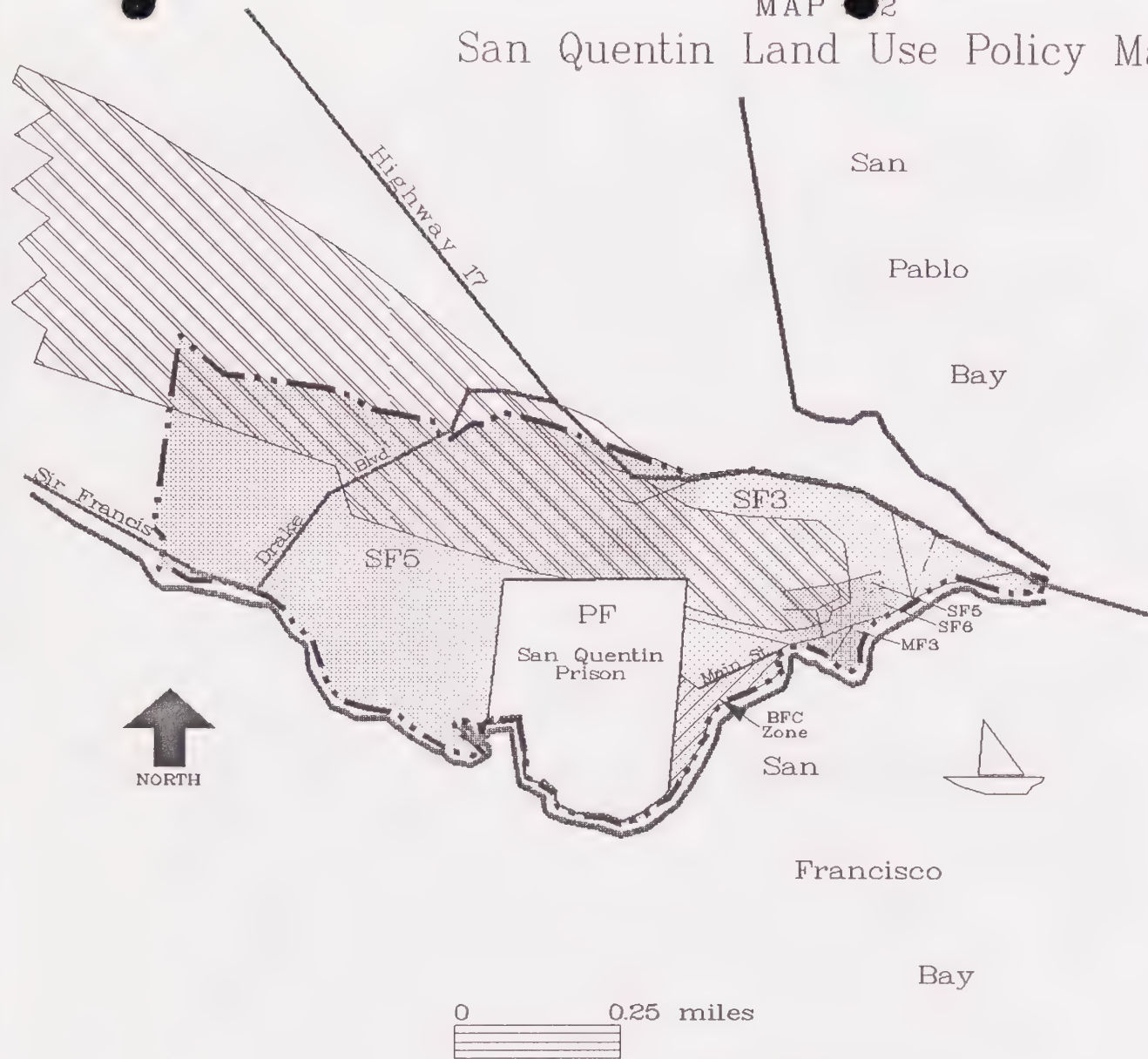
This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

Kentfield
Community Plan
Boundary

City of
Larkspur



MAP 02 San Quentin Land Use Policy Map

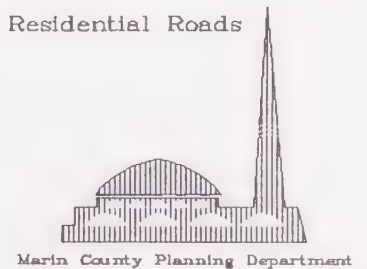


Land Use Policy 1991

- | | | |
|--|----------------------------------|-----|
| | Single Family (4-7 units/acre) | SF6 |
| | Single Family (2-4 units/acre) | SF5 |
| | Single Family (1 unit/1-5 acres) | SF3 |
| | Multi Family (5-10 units/acre) | MF3 |
| | Public Facility | PF |
| | Bayfront Conservation Zone | |
| | Ridge and Upland Greenbelt Areas | |
| | Community Boundary | |
| | Bay Coastline | |
| | Major Roads | |
| | Residential Roads | |





Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991





This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



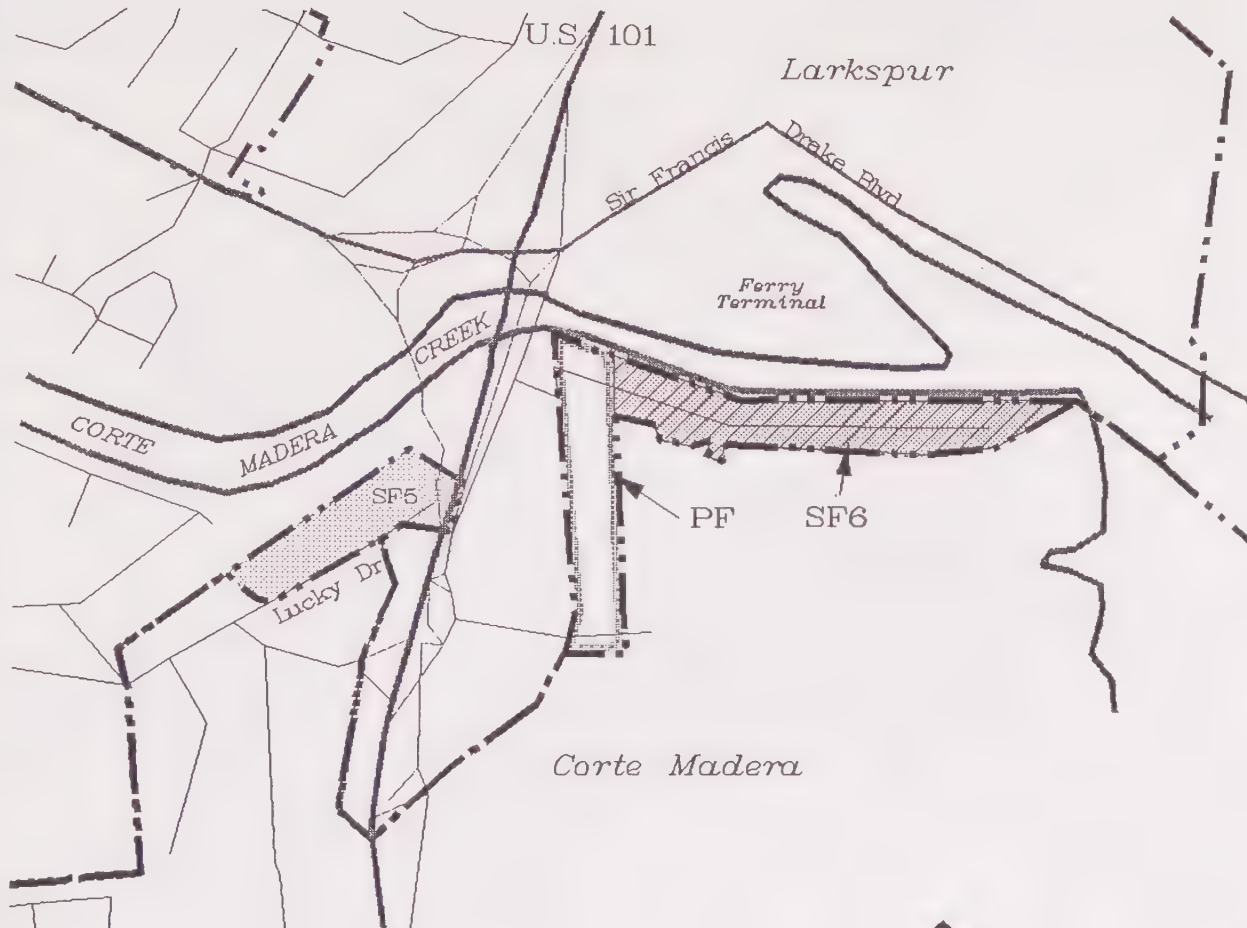
MAP 5.3 Greenbrae Boardwalk Land Use Policy Map

Land Use Policy 1991

-  SF6 Single Family (4 to 7 units/acre)
-  SF5 Single Family (2 to 4 units/acre)
-  PF Public Facility
-  Bayfront Conservation Zone

-  City Boundaries
-  Major Roads
-  Residential Roads
-  Shoreline

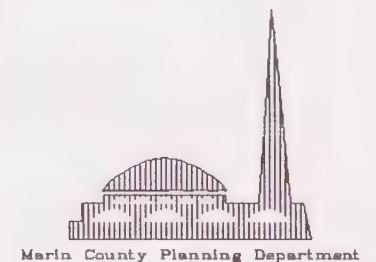
Source
Assessor's Parcel Book Zoning
Overlays as of January 1991



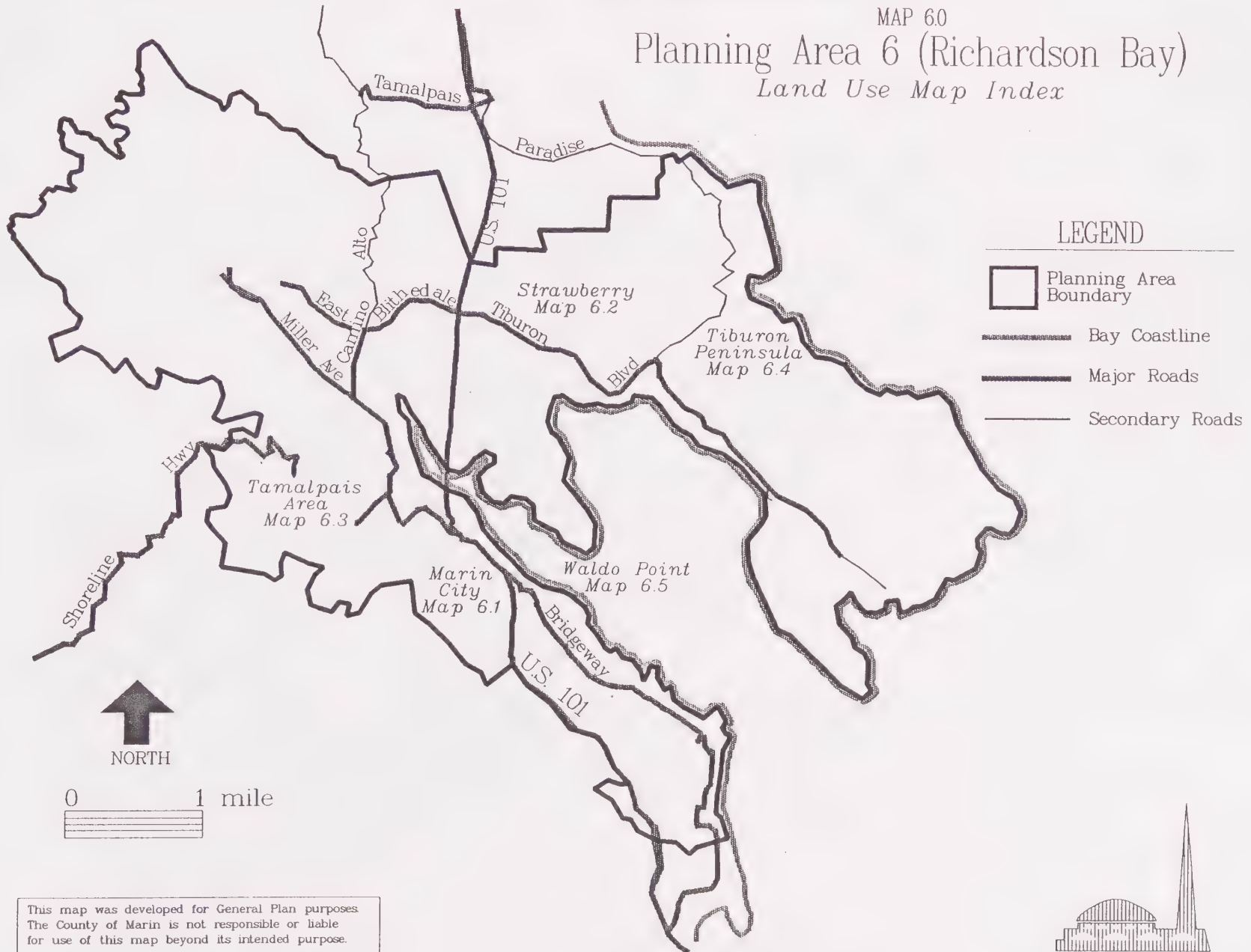
0 0.25 miles



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.
















MAP 6.0
Planning Area 6 (Richardson Bay)
Land Use Map Index

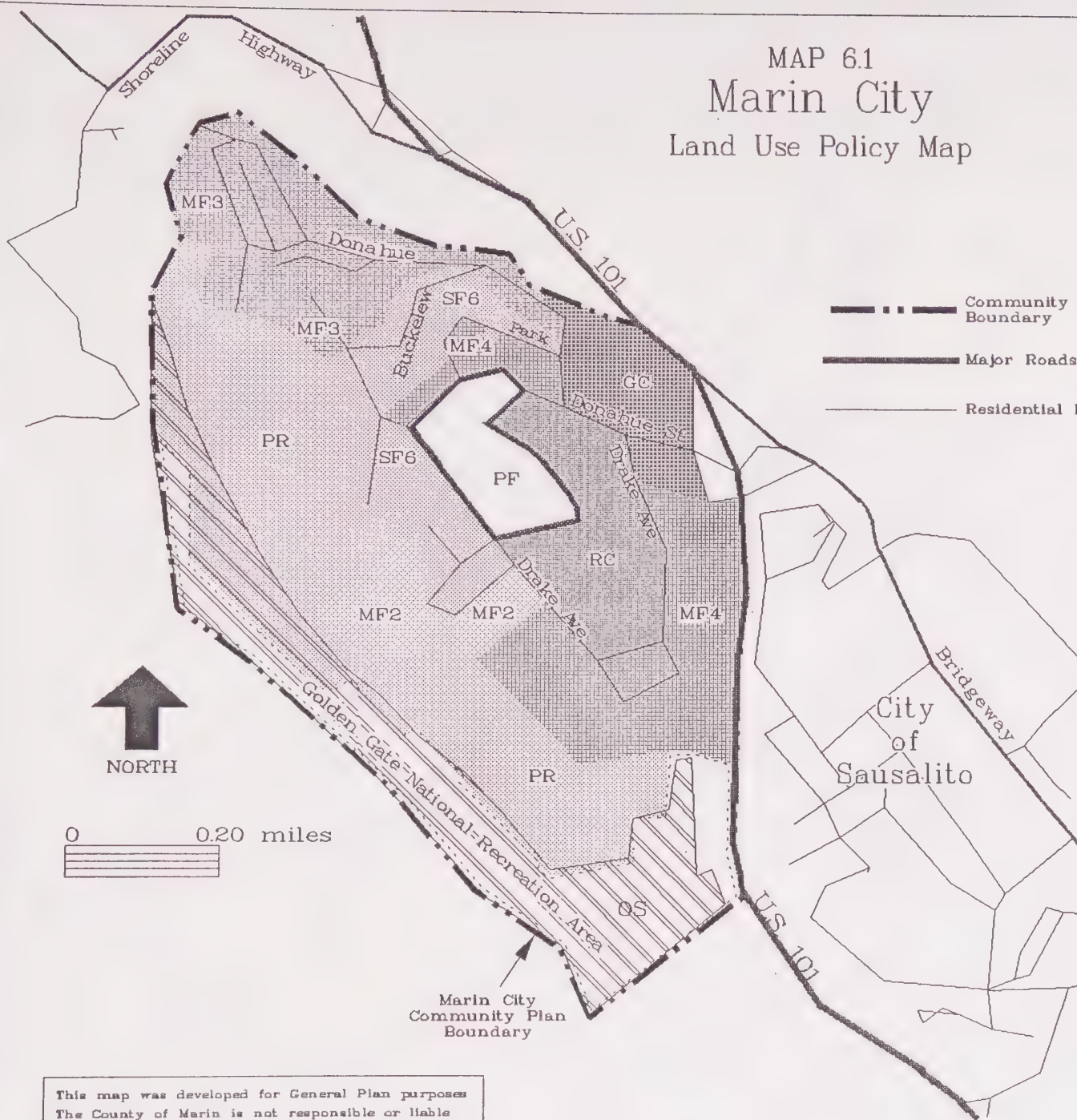


MAP 6.1 Marin City Land Use Policy Map

Land Use Policy 1991

	Single Family (4-7 units/acre)	SF6
	Multi Family (11-35 units/acre)	MF4
	Multi Family (5-10 units/acre)	MF3
	Multi Family (1-4 units/acre)	MF2
	Planned Residential (1 unit/1-10 acres)	PR
	General Commercial (F.A.R. = 0.6 to 0.9)	GC
	Residential Commercial (F.A.R. = 0.6 to 0.9) (11 to 35 units/acre)	RC
	Public Facility	PF
	Open Space	OS
	Ridge and Upland Greenbelt Areas	

-  Community Plan Boundary
-  Major Roads
-  Residential Roads



0 0.20 miles

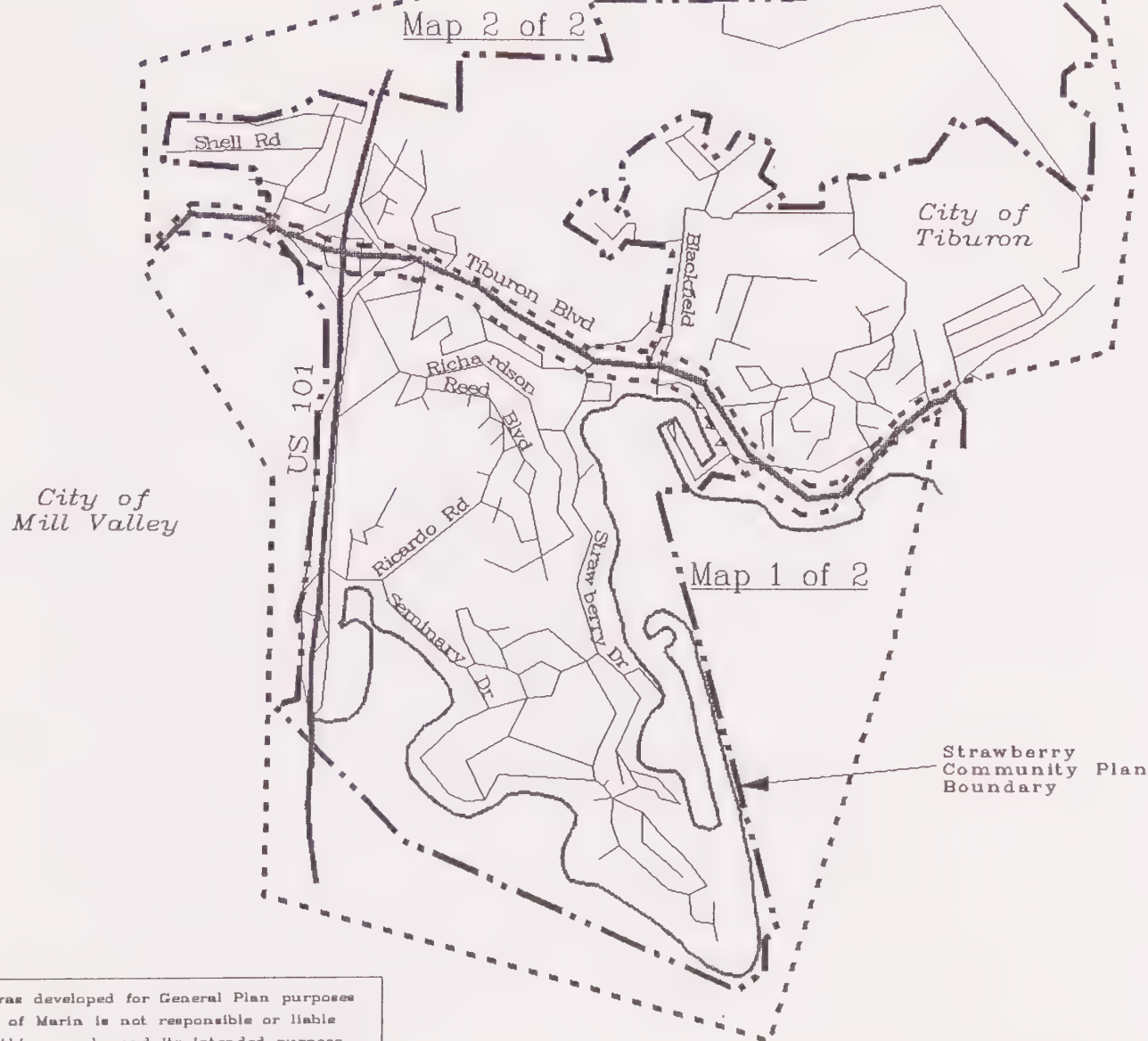
Marin City
Community Plan
Boundary

Source Assessor's Parcel Book Zoning
Overlays as of January 1991



This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

MAP 6.2.0
Strawberry
Land Use Policy Map Key

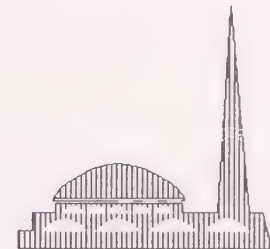


LEGEND

- Community Plan Boundary
- Bay Coastline
- Major Roads
- Residential Roads



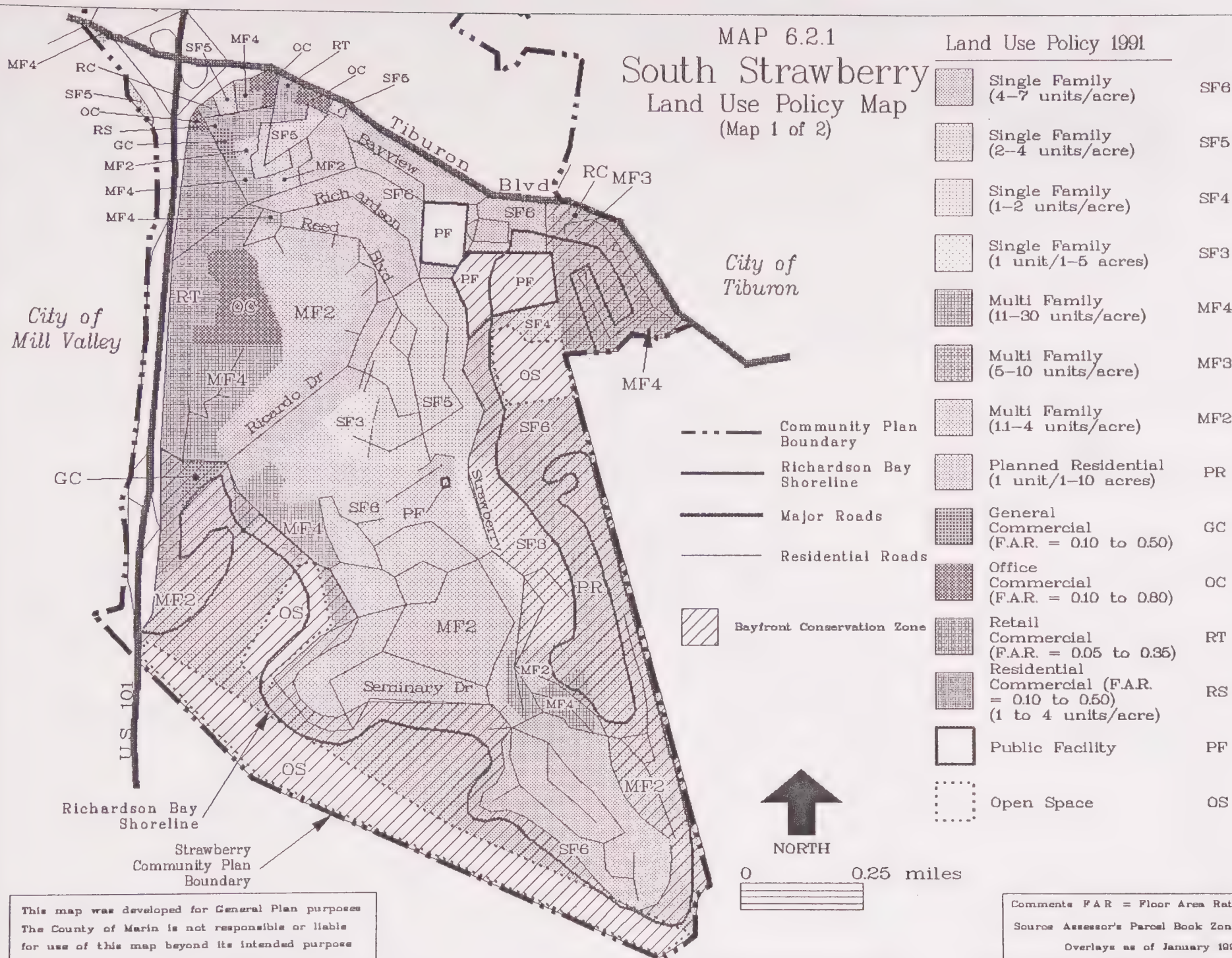
0 0.5 miles



Marin County Planning Department

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose











Land Use Policy 1991





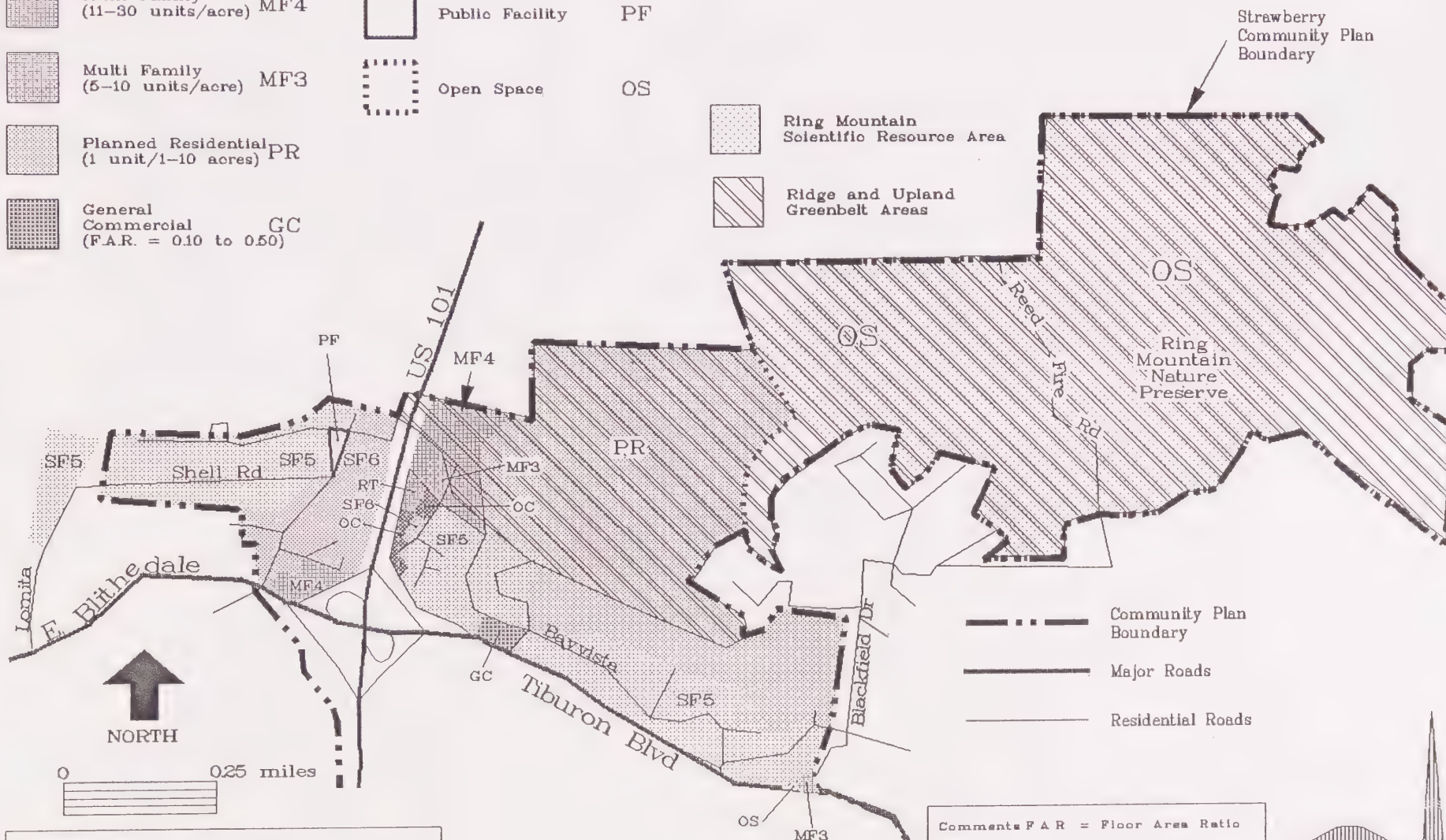
This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

Comments F A R = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of January 1991

MAP 6.2.2
North Strawberry & Alto
Land Use Policy Map
(Map 2 of 2)

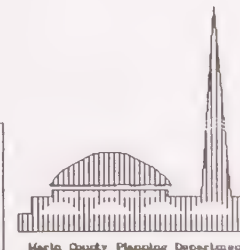
	Single Family (4-7 units/acre) SF6		Office Commercial OC (F.A.R. = 0.10 to 0.60)
	Single Family (2-4 units/acre) SF5		Retail Commercial RT (F.A.R. = 0.10 to 0.35)
	Multi Family (11-30 units/acre) MF4		Public Facility PF
	Multi Family (5-10 units/acre) MF3		Open Space OS
	Planned Residential PR (1 unit/1-10 acres)		
	General Commercial GC (F.A.R. = 0.10 to 0.50)		

	Ring Mountain Scientific Resource Area
	Ridge and Upland Greenbelt Areas



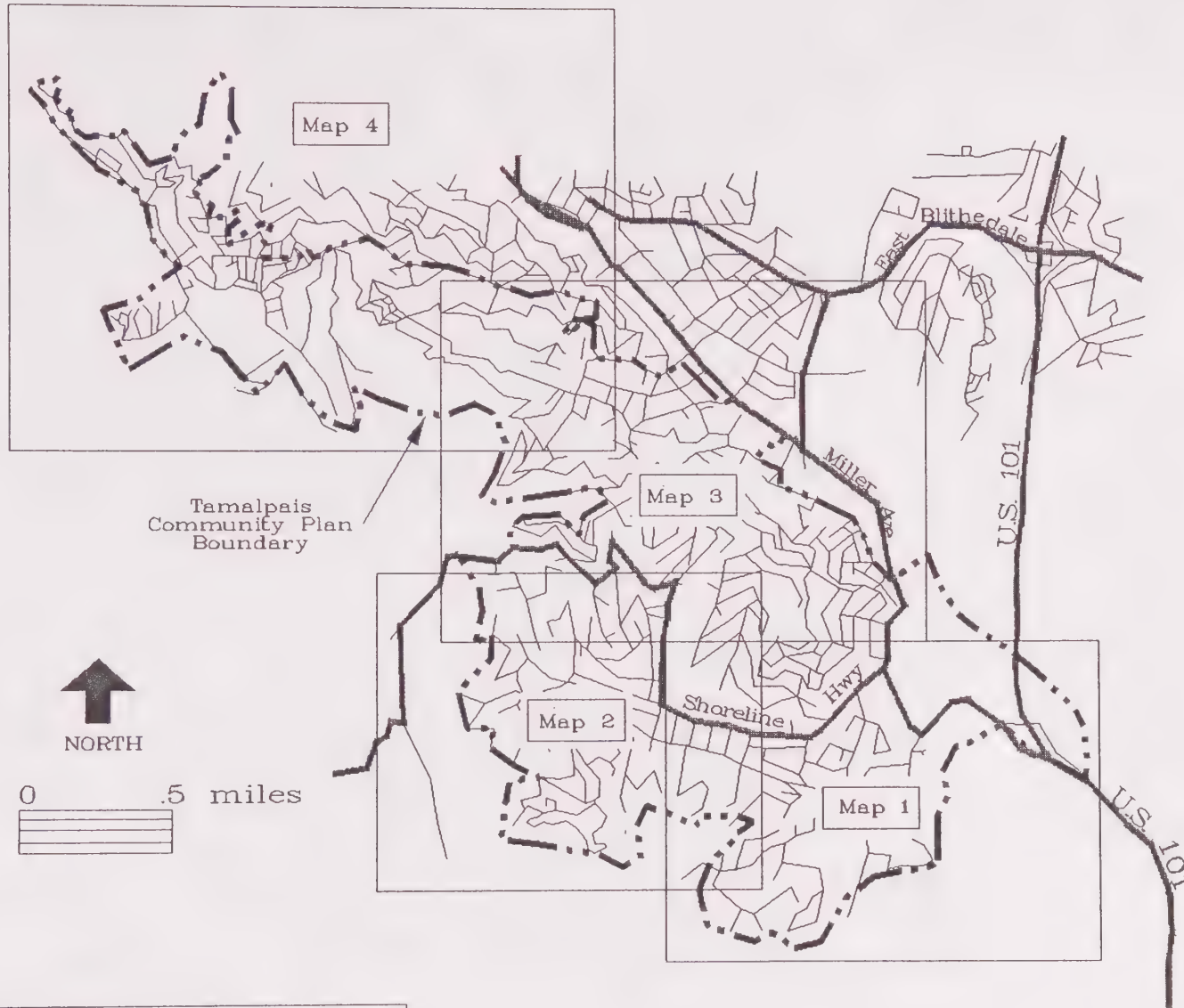
- Community Plan Boundary
- Major Roads
- Residential Roads

Comments: F.A.R. = Floor Area Ratio
Source: Assessor's Parcel Book
Zoning Overlays as of January 1991



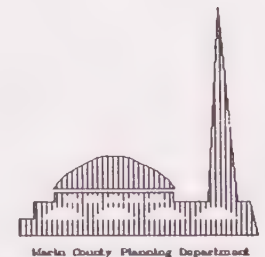
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

Tamalpais Area Land Use Policy Map Key



LEGEND

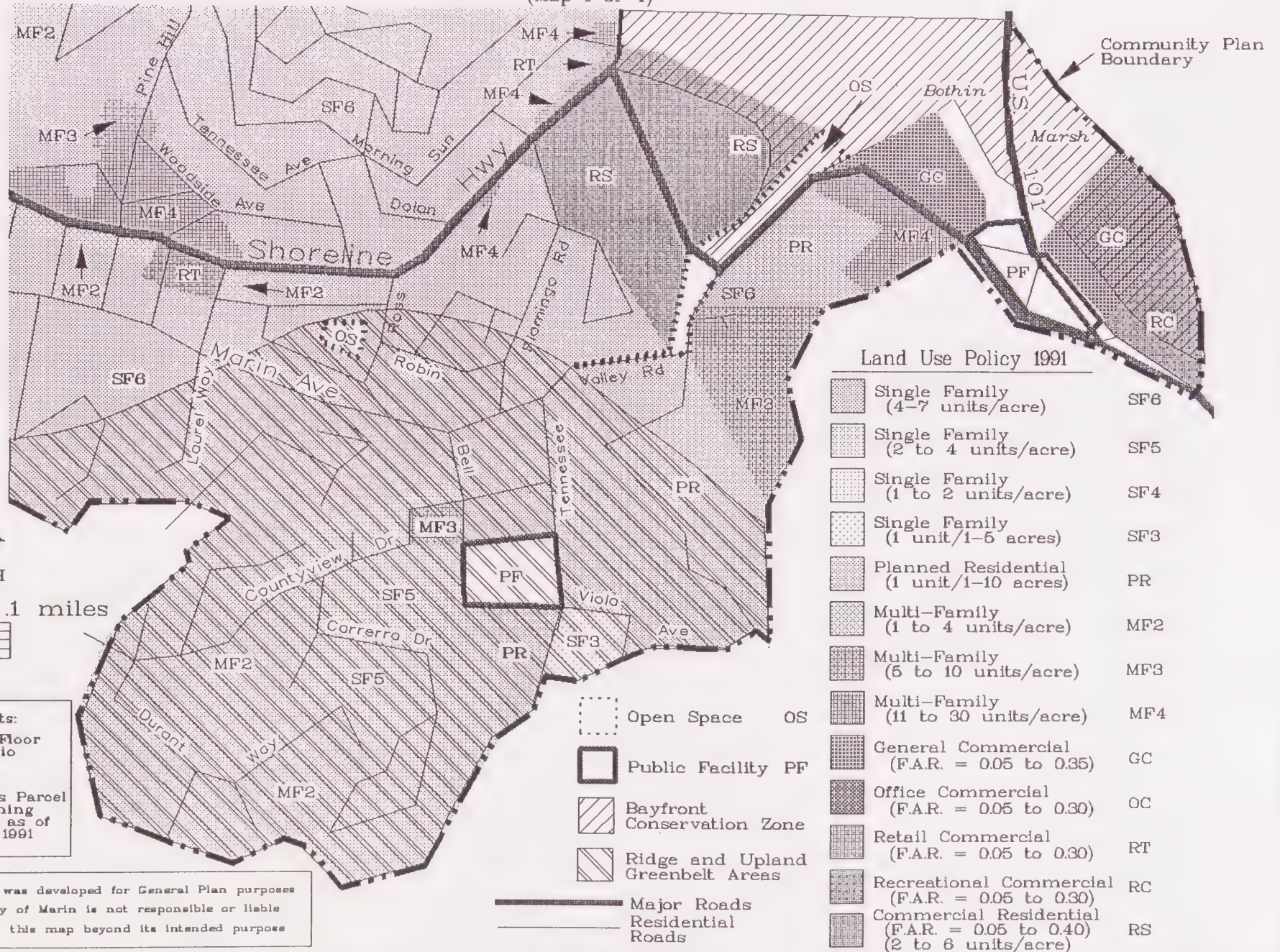
- Community Plan Boundary
- Major Roads
- Residential Roads



This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

Tamalpais Area Land Use Policy

(Map 1 of 4)



Tamalpais Area Land Use Policy Map

MAP 6.3.2

(Map 2 of 4)

Land Use Policy 1991

	Single Family (4-7 units/acre)	SF6
	Single Family (2 to 4 units/acre)	SF5
	Single Family (1 to 2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Multi-Family (1 to 4 units/acre)	MF2
	Multi-Family (5 to 10 units/acre)	MF3
	Multi-Family (11 to 30 units/acre)	MF4
	Retail Commercial (F.A.R. = 0.05 to 0.30)	RT
	Open Space	OS
	Public Facility	PF
	Ridge and Upland Greenbelt Areas	

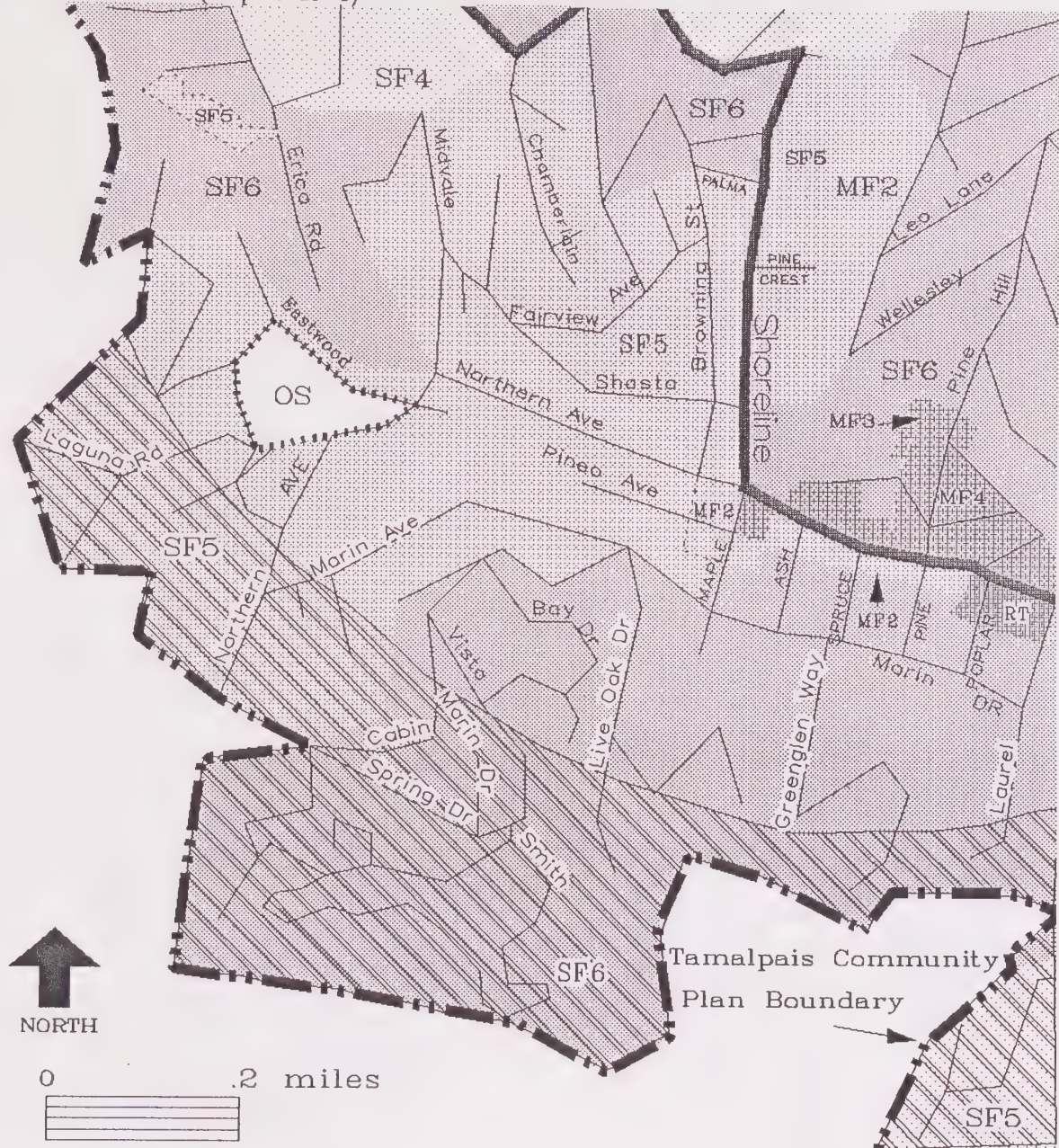
Community Plan Boundary

Major Roads

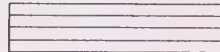
Residential Roads

Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose



0 .2 miles



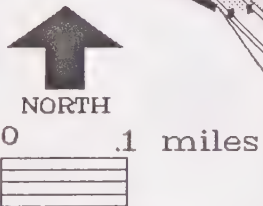
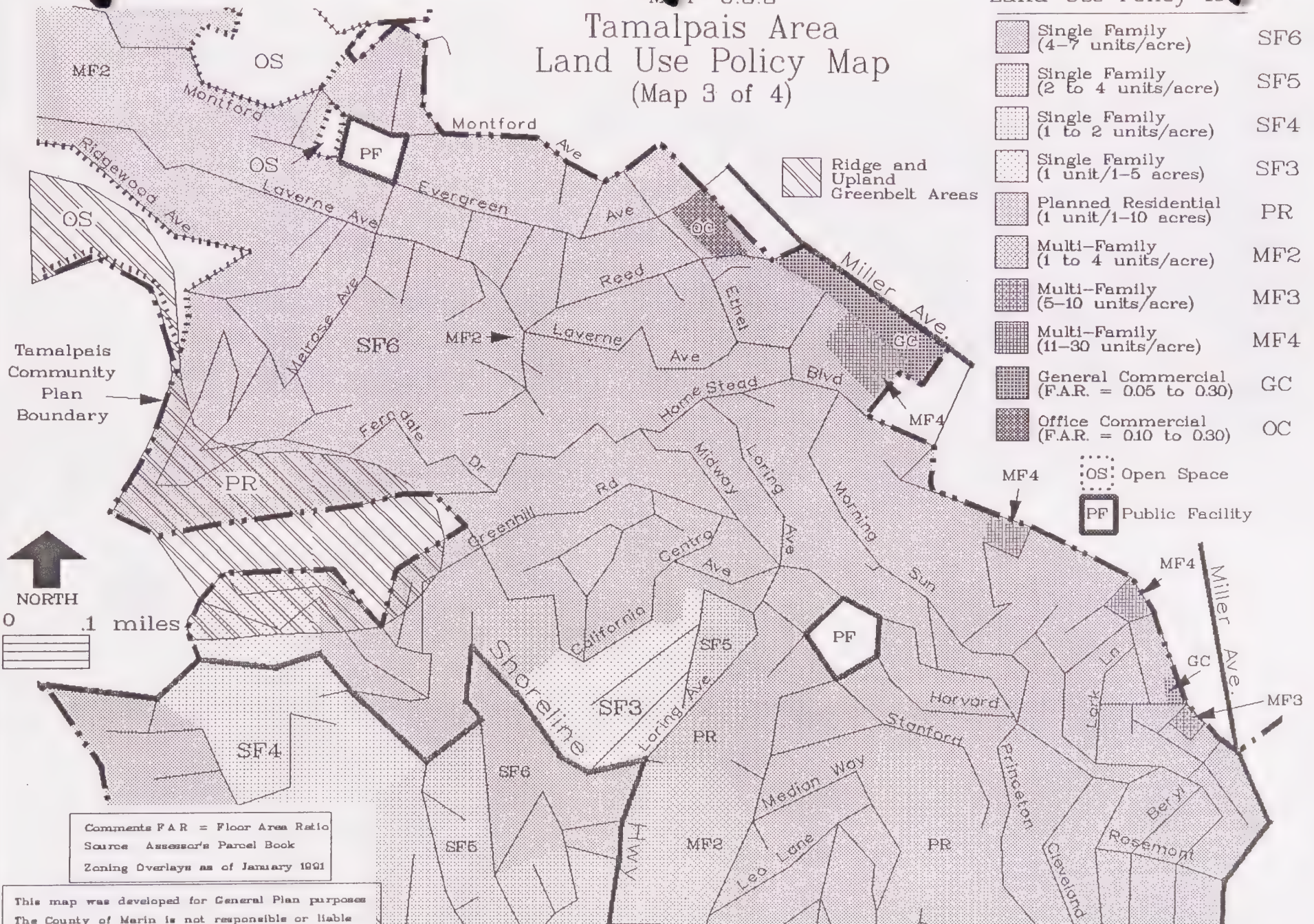
MAP 6.3.3
 Tamalpais Area
 Land Use Policy Map
 (Map 3 of 4)

Land Use Policy 1991

	Single Family (4-7 units/acre)	SF6
	Single Family (2 to 4 units/acre)	SF5
	Single Family (1 to 2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Planned Residential (1 unit/1-10 acres)	PR
	Multi-Family (1 to 4 units/acre)	MF2
	Multi-Family (5-10 units/acre)	MF3
	Multi-Family (11-30 units/acre)	MF4
	General Commercial (F.A.R. = 0.05 to 0.30)	GC
	Office Commercial (F.A.R. = 0.10 to 0.30)	OC

OS: Open Space
 PF Public Facility

Ridge and Upland Greenbelt Areas



Comments FAR = Floor Area Ratio
 Source Assessor's Parcel Book
 Zoning Overlays as of January 1991

This map was developed for General Plan purposes
 The County of Marin is not responsible or liable
 for use of this map beyond its intended purpose

MAP 6.3.4 Tamalpais Area Land Use Policy Map

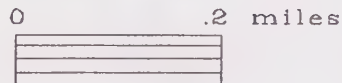
(Map 4 of 4)

Land Use Policy 1991

	Single Family (4-7 units/acre)	SF6
	Single Family (2 to 4 units/acre)	SF5
	Single Family (1 to 2 units/acre)	SF4
	Single Family (1 unit/1-5 acres)	SF3
	Planned Residential (1 unit/1-10 acres)	PR
	Multi-Family (1 to 4 units/acre)	MF2
	Open Space	OS
	Public Facility	PF

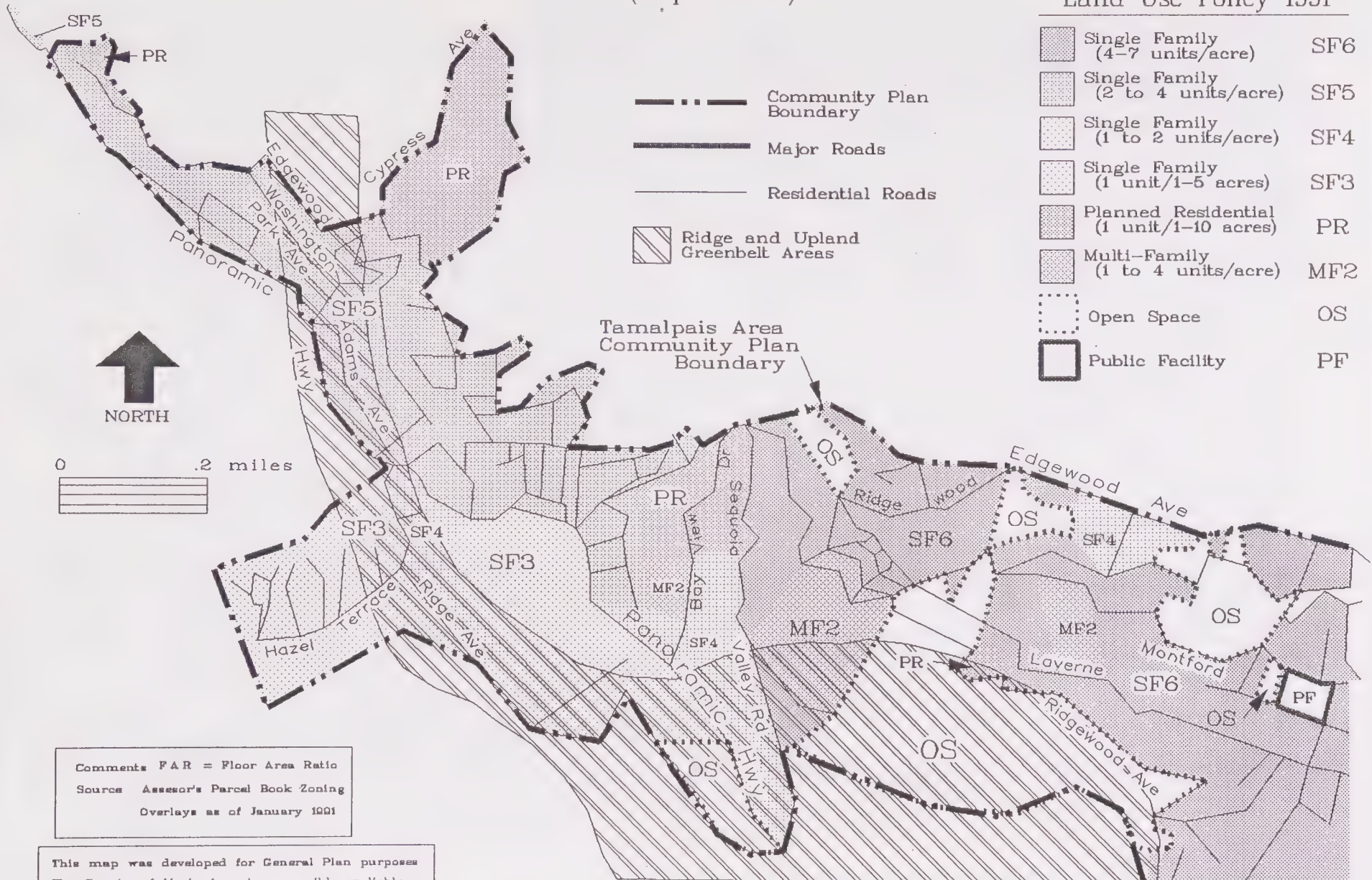
- Community Plan Boundary
- Major Roads
- Residential Roads
- Ridge and Upland Greenbelt Areas

Tamalpais Area
Community Plan
Boundary



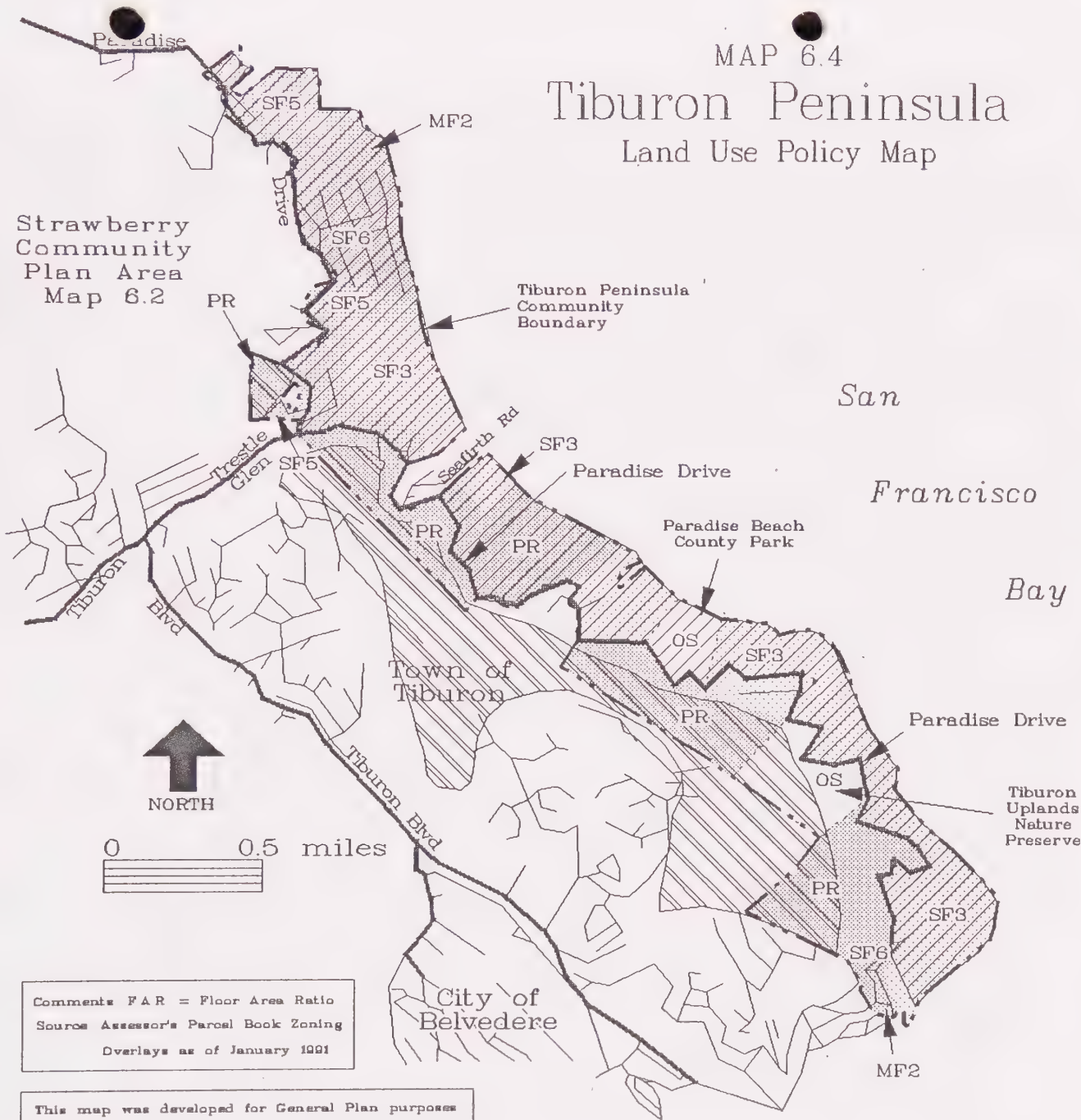
Comments: FAR = Floor Area Ratio
Source: Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



MAP 6.4

Tiburon Peninsula Land Use Policy Map



Land Use Policy 1991

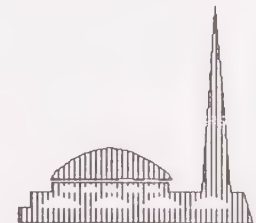
	Single Family (4-7 units/acre)	SF6
	Single Family (2-4 units/acre)	SF5
	Single Family (1 unit/1-5 acres)	SF3
	Multi Family (11-4 units/acre)	MF2
	Planned Residential (1 unit/1-10 acres)	PR
	Open Space	OS
	Bayfront Conservation Zone	
	Ridge and Upland Greenbelt Areas	
	Area Boundary	
	Major Roads	
	Residential Roads	



0 0.5 miles

Comments: FAR = Floor Area Ratio
Source: Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.







Marin County Planning Department

MAP 6.5 Waldo Point Land Use Policy Map








0 0.3 miles

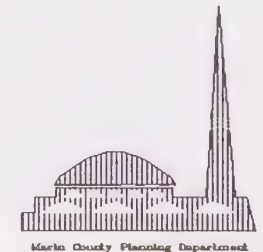
Land Use Policy 1991

-  Floating Homes * (4-7 units/acre) FH
-  Commercial Retail (F.A.R. = 0.20 to 0.63) RT
-  Open Space OS
-  Public Facility/ Freeway on-ramp PF

* Floating Homes are in the Bayfront Conservation Zone

-  Bay Coastline
-  Community Plan Boundaries
-  City Limits
-  Major Roads
-  Residential Roads

Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of January 1991



This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

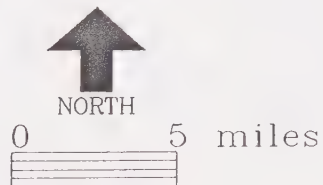
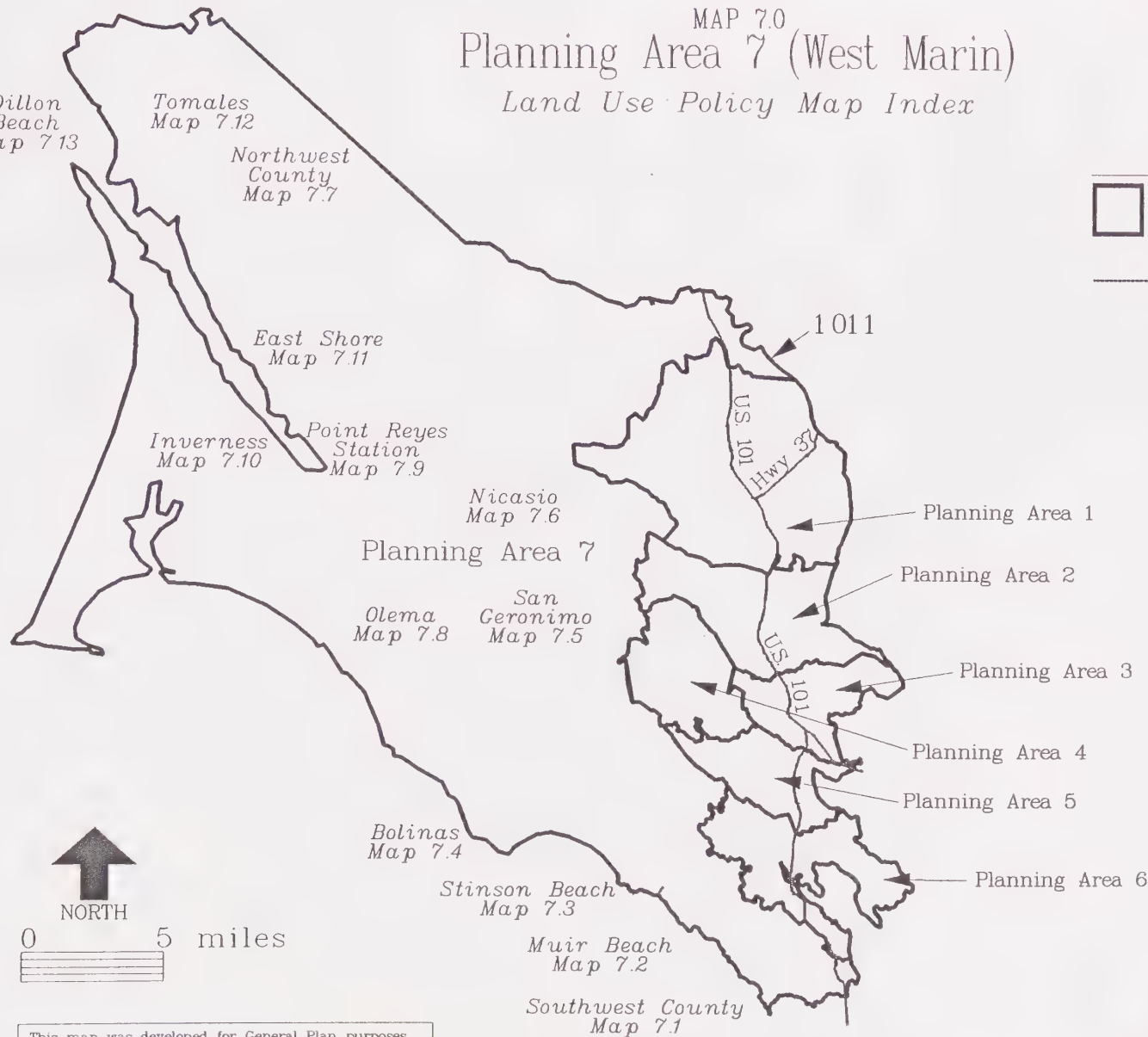
MAP 7.0
Planning Area 7 (West Marin)
Land Use Policy Map Index

LEGEND

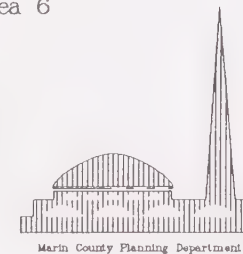


County Wide Plan
Planning Areas

Major Roads






This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.

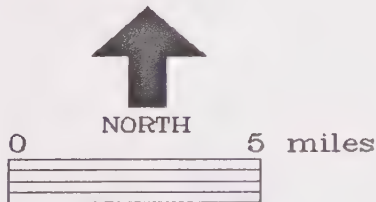
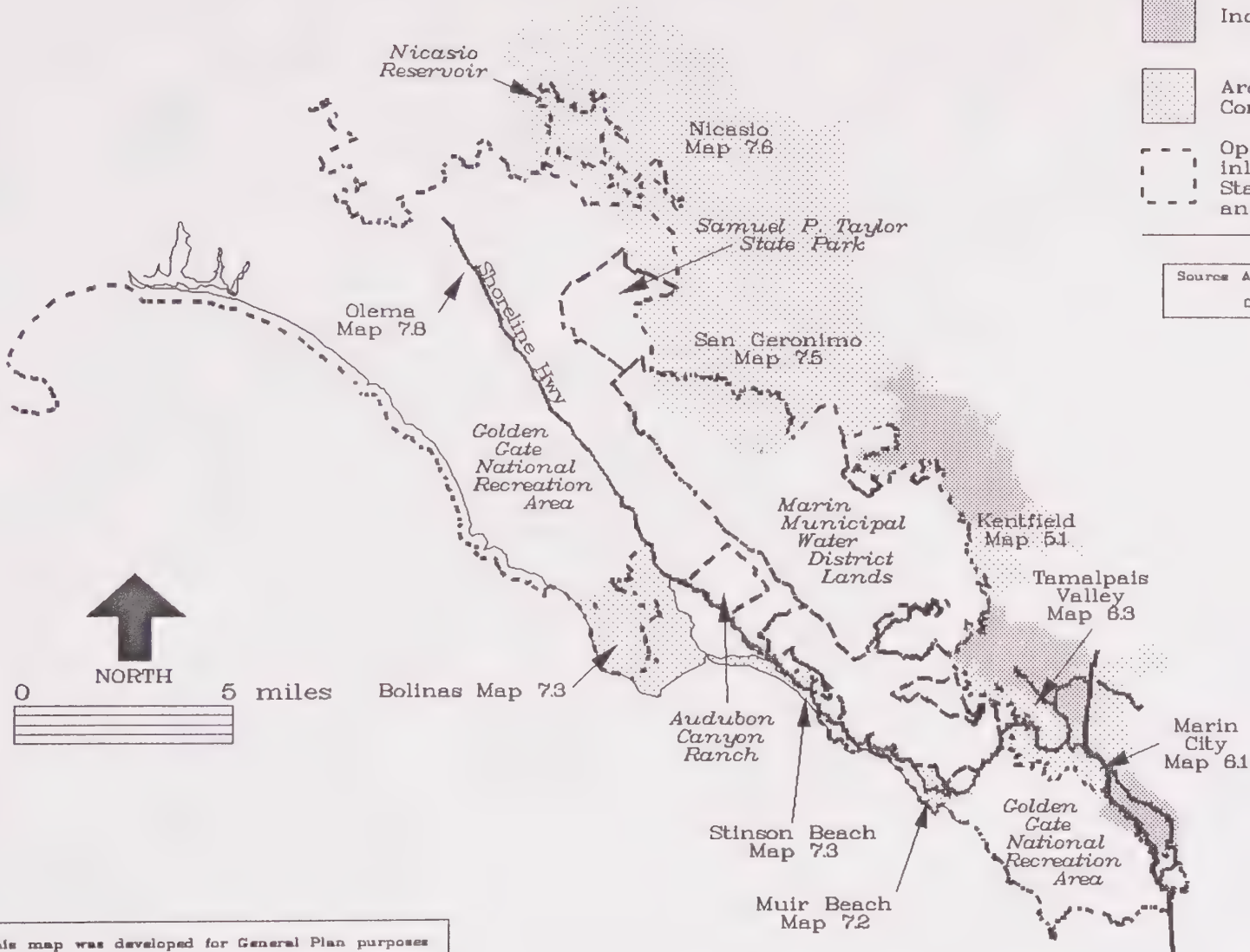


MAP 7.1 Southwest Marin County Land Use Policy Map Index

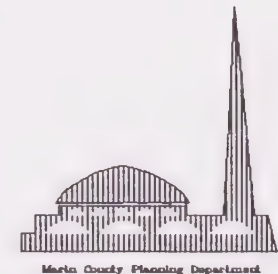
Land Use Policy 1991

-  Incorporated Cities
-  Areas detailed in Community Maps
-  Open Space Areas including National, State and Regional Parks and Water District Lands

Source Assessor's Parcel Book Zoning
Overlays as of January 1991












This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



Muir Beach Land Use Policy Map

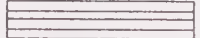
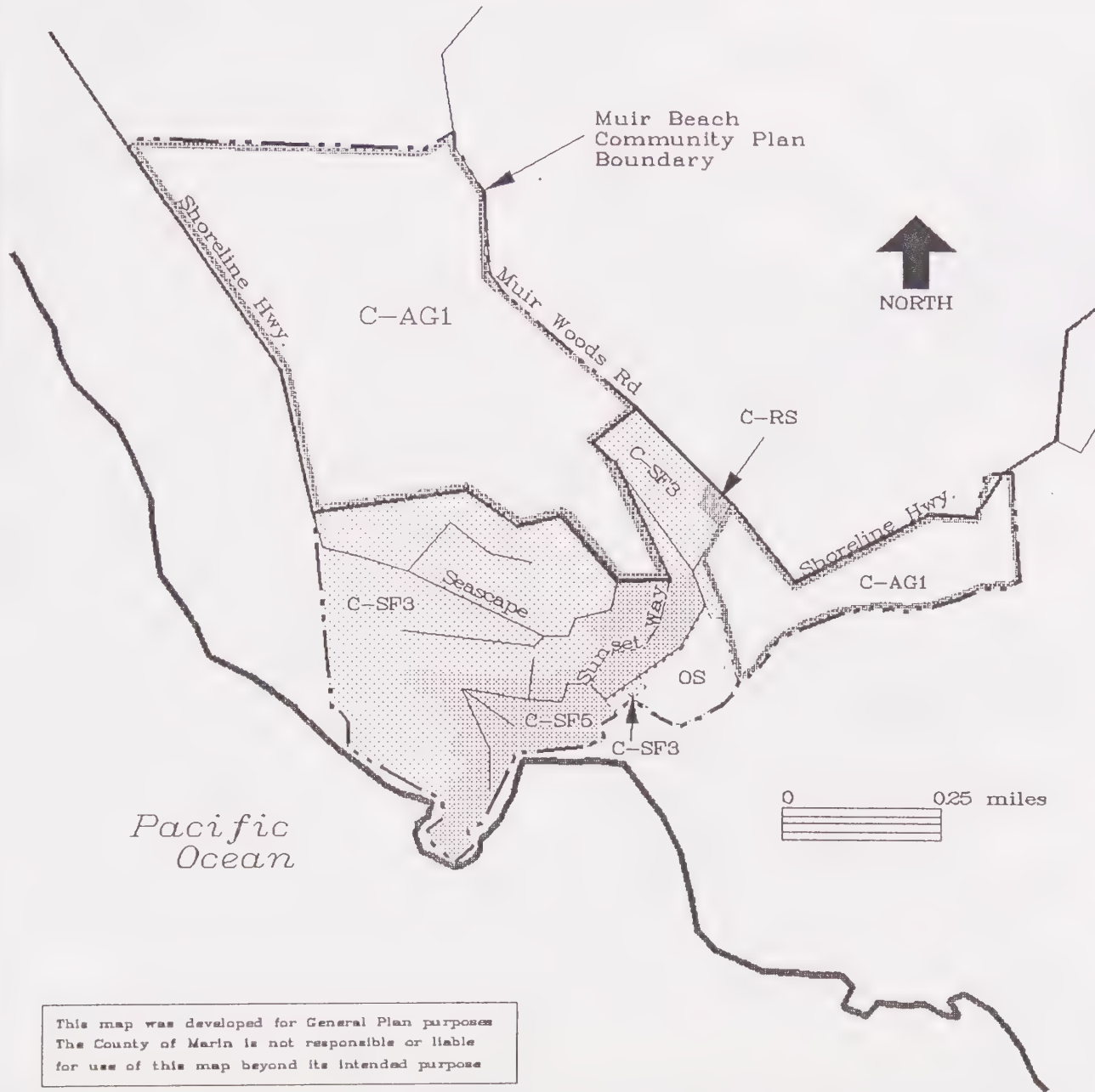
Land Use Policy 1991

	Coastal Single Family (2-4 units/acre)	C-SF5
	Coastal Single Family (1 unit/1-5 acres)	C-SF3
	Coastal Residential Commercial (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres)	C-RS
	Coastal Agricultural (1 unit/30-60 acres)	C-AG1
	Coastal Open Space	OS

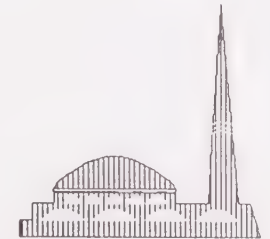
	Community Plan Boundary
	Coastline
	Major Roads
	Residential Roads

Comments	FAR = Floor Area Ratio
Source	Assessor's Parcel Book Zoning Overlays as of January 1991

0 0.25 miles

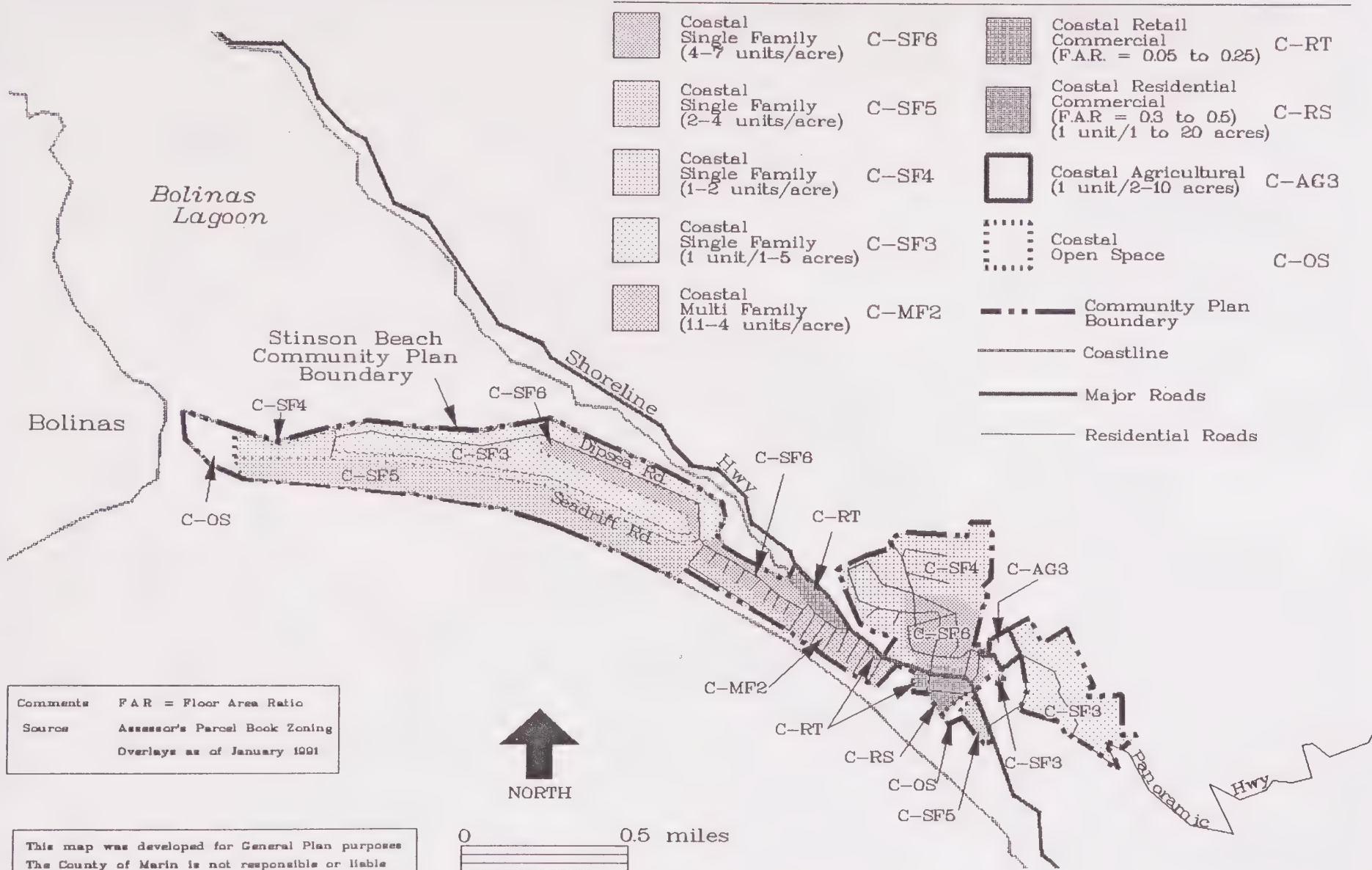
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



Marin County Planning Department

MAP 7.3 Stinson Beach Land Use Policy Map

Land Use Policy 1991

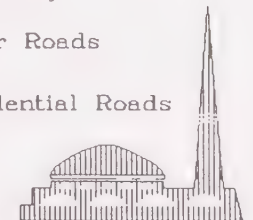


MAP 7.4 Bollnas Land Use Policy Map

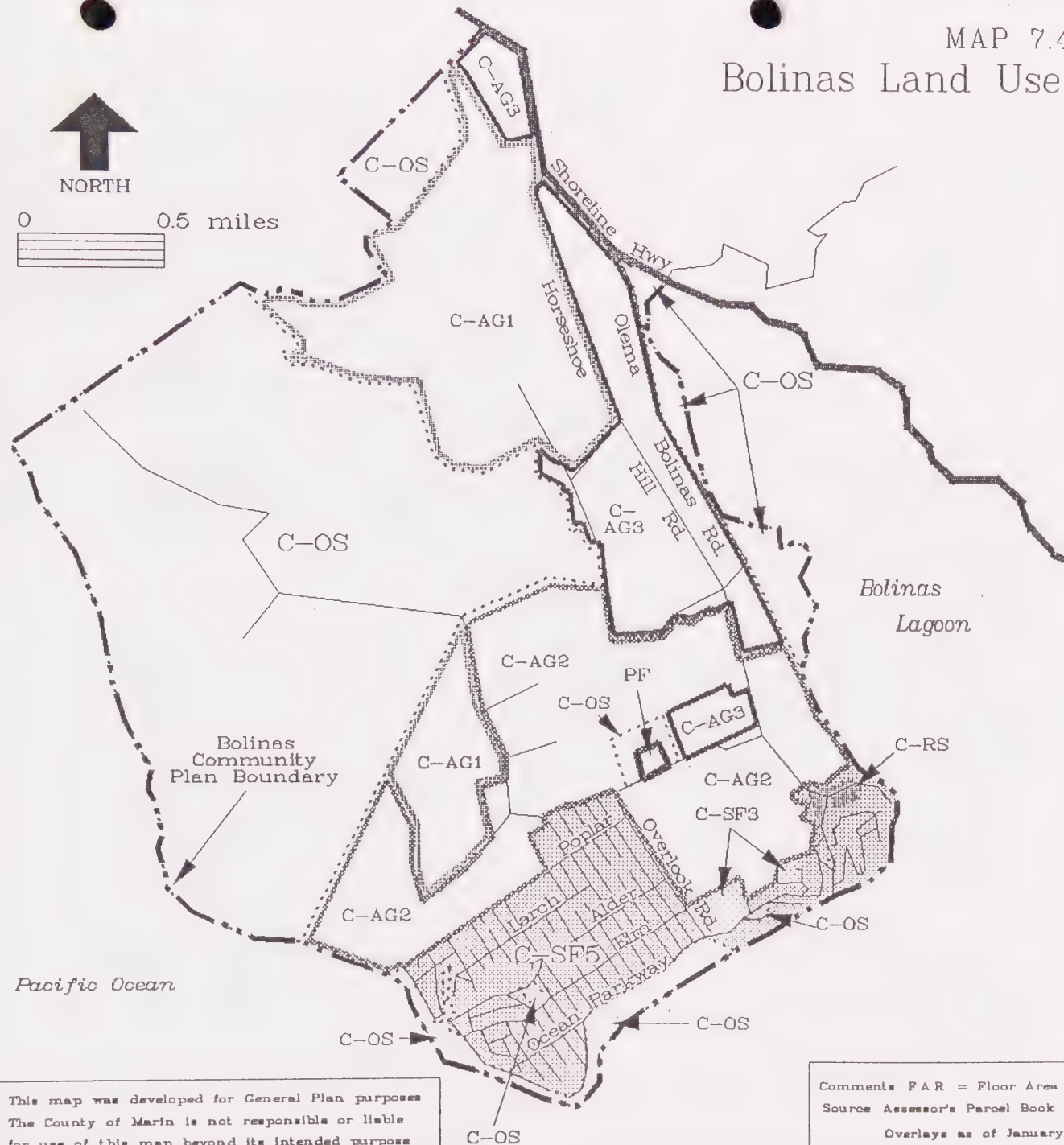
Land Use Policy 1991

	Coastal Single Family (2-4 units/acre)	C-SF5
	Coastal Single Family (1 unit/1-5 acres)	C-SF3
	Coastal Residential Commercial (F.A.R. = 0.3 to 0.5)	C-RS
	Public Facility	PF
	Coastal Agricultural (1 unit/2-10 acres)	C-AG3
	Coastal Agricultural (1 unit/10-30 acres)	C-AG2
	Coastal Agricultural (1 unit/30-60 acres)	C-AG1
	Coastal Open Space	C-OS

- Community Plan Boundary
- Major Roads
- Residential Roads



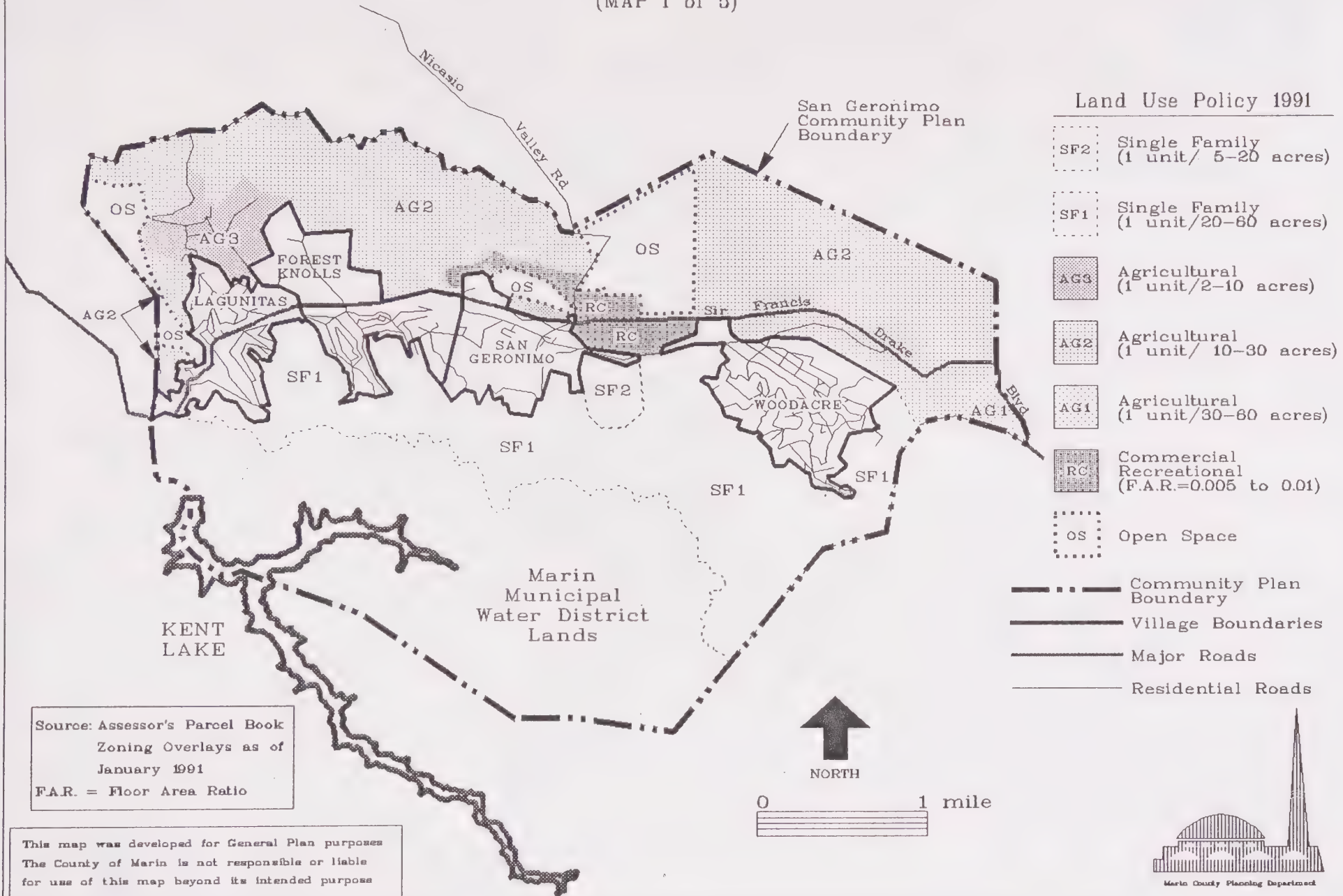
Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of January 1991



This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

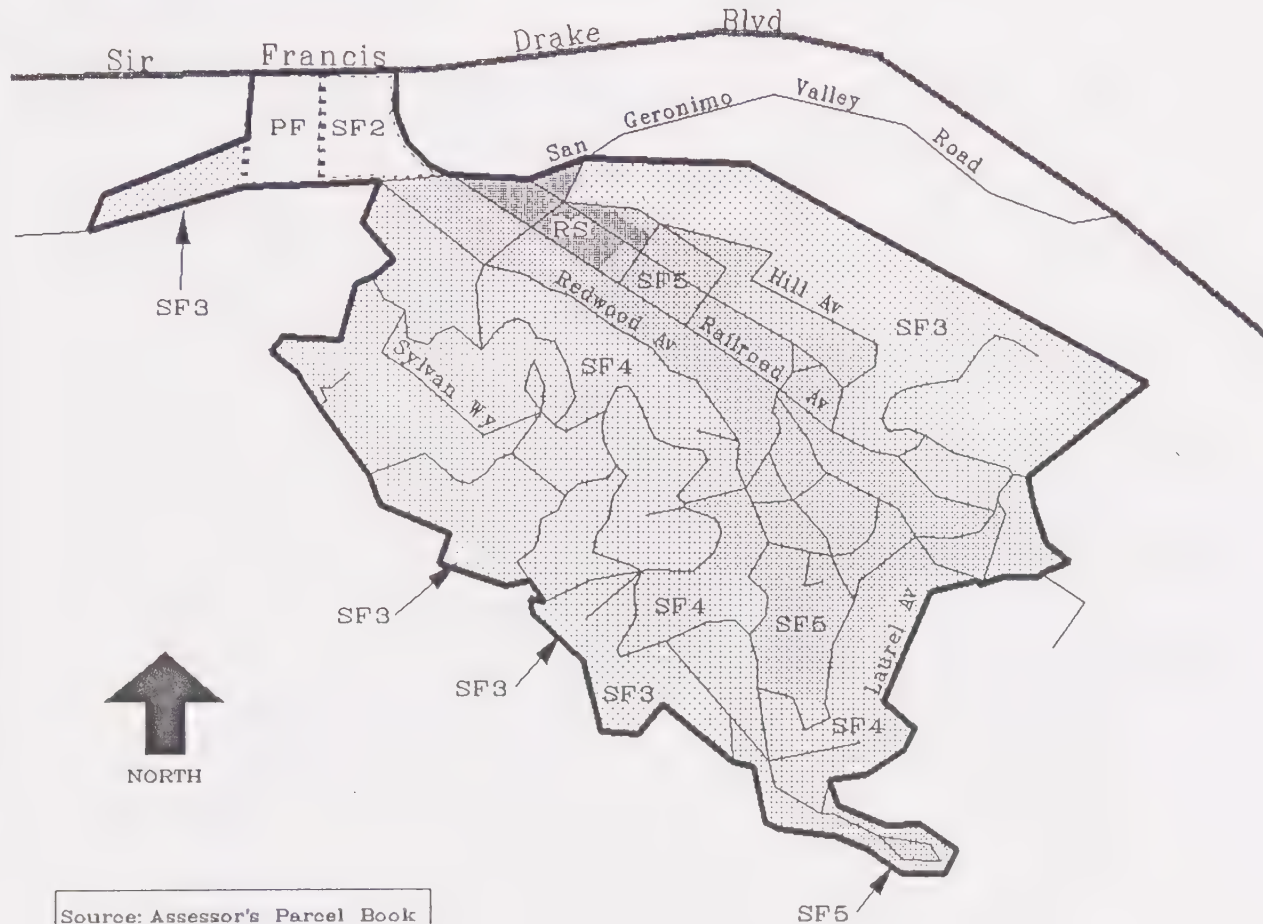
San Geronimo Valley Land Use Policy Map

(MAP 1 of 5)












Woodacre Land Use Policy Map

(MAP 2 of 5)



Land Use Policy 1991


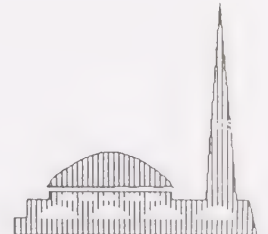
-  SF5 Single Family (2-4 units/acre)
-  SF4 Single Family (1-2 units/acre)
-  SF3 Single Family (1 unit/ 1-5 acres)
-  SF2 Single Family (1 unit/ 5-20 acres)
-  RS Commercial Residential (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres)
-  PF Public Facility

-  Community Boundary
-  Major Roads
-  Residential Roads

Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991
F.A.R. = Floor Are Ratio

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

0 0.25 miles












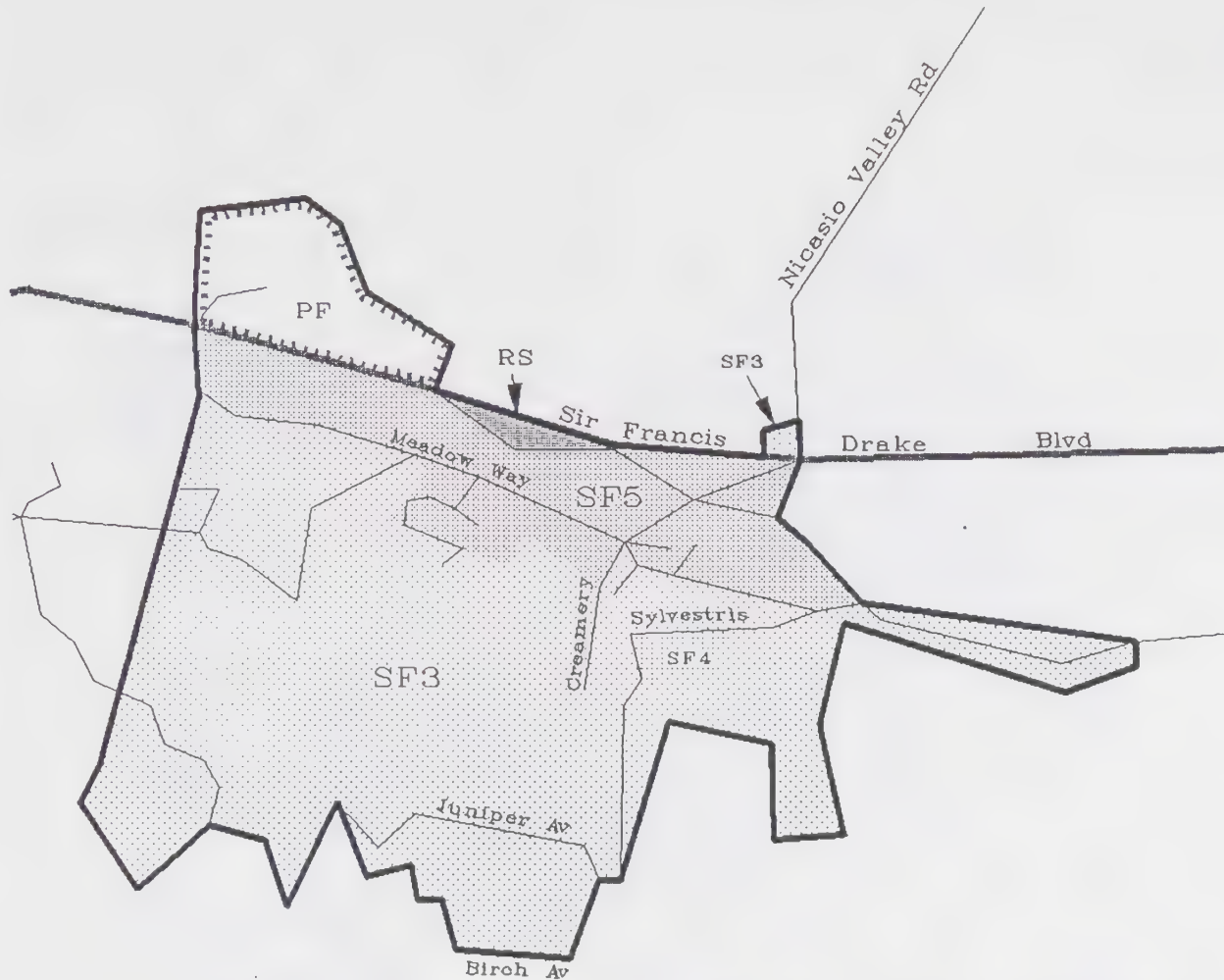
Marin County Planning Department

Map 7.5.2
San Geronimo Land Use Policy Map
(MAP 3 of 5)

Community Development Element
Draft as of 8/30/91

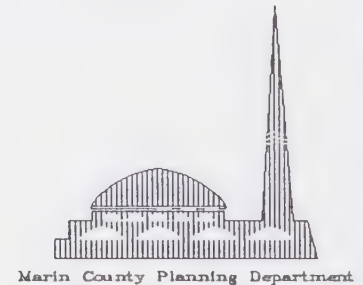
Land Use Policy 1991

-  Single Family
(2-4 units/ Acre)
-  Single Family
(1-2 units/ Acre)
-  Single Family
(1 unit/1-5 acres)
-  Commercial Residential
(F.A.R. = 0.3 to 0.5)
(1 unit/1 to 20 acres)
-  Public Facility
-  San Geronimo
Community Boundary
-  Major Roads
-  Residential Roads



Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991
F.A.R. = Floor Area Ratio








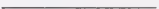
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



Forest Knolls Land Use Policy Map

(MAP 4 of 5)

Land Use Policy 1991

-  SF5 Single Family (2-4 units/ Acre)
-  SF4 Single Family (1-2 units/ Acre)
-  SF3 Single Family (1 unit/ 1-5 Acres)
-  RS Commercial Residential (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres)
-  OS Open Space
-  Community Boundary
-  Major Roads
-  Residential Roads

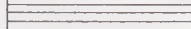
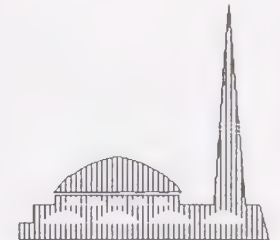


Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991
F.A.R. = Floor Area Ratio

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.







0 0.25 miles







Marin County Planning Department

Map 7.5.4 Lagunitas Land Use Policy Map (MAP 5 of 5)

Land Use Policy 1991

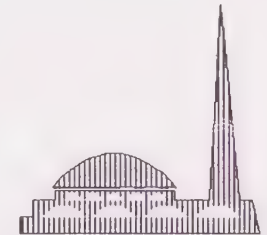
-  SF4 Single Family
(1-2 units/ Acre)
-  SF3 Single Family
(1 unit/ 1-5 Acres)
-  CG Commercial
General
(F.A.R. = 0.05 to 0.15)
-  RS Commercial Residential
(F.A.R. = 0.3 to 0.5)
(1 unit/1 to 20 acres)

-  Community Boundary
-  Major Roads
-  Residential Roads



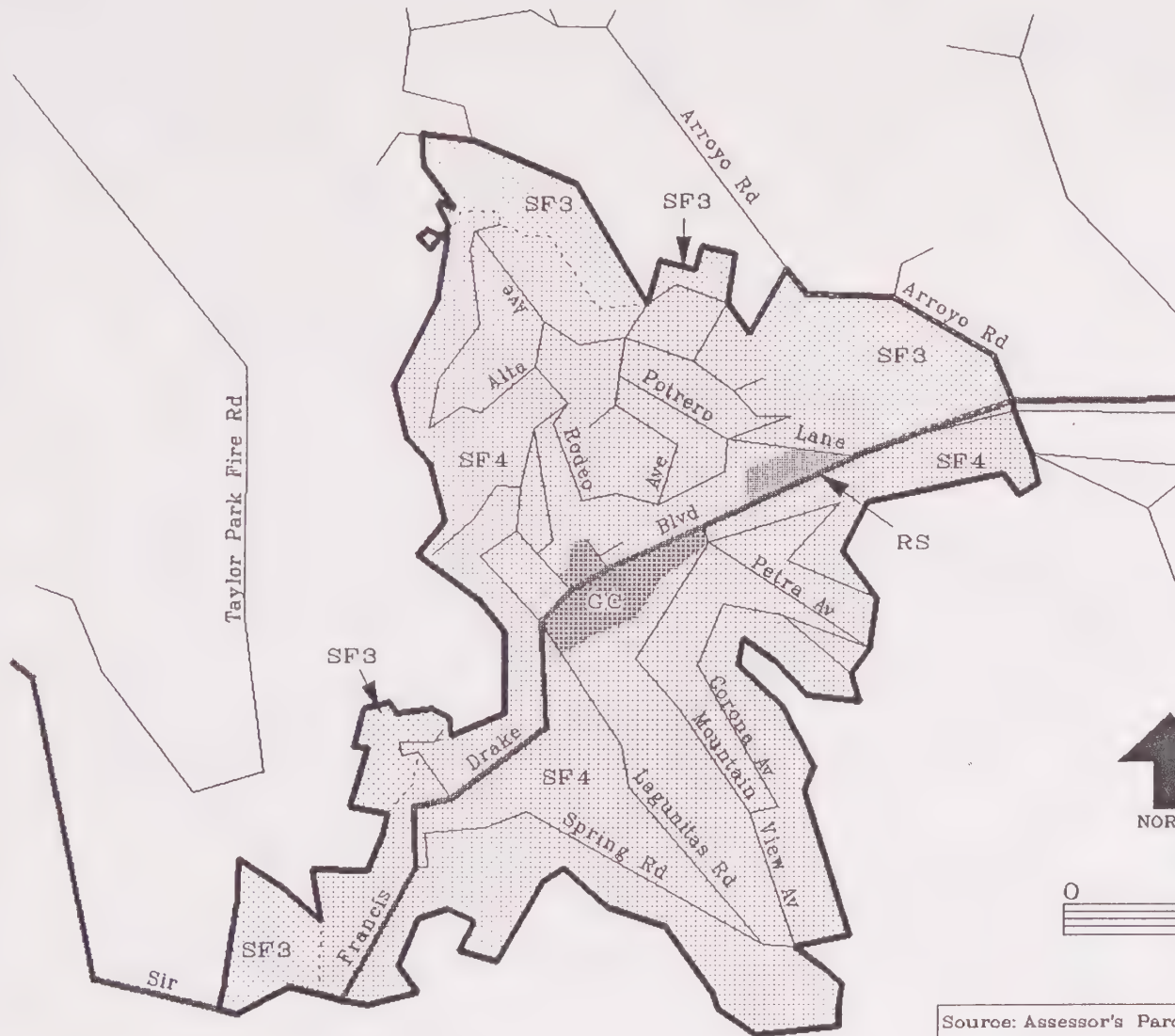
0 0.25 miles

Source: Assessor's Parcel Book
Zoning Overlays as of
January 1991
F.A.R. = Floor Area Ratio

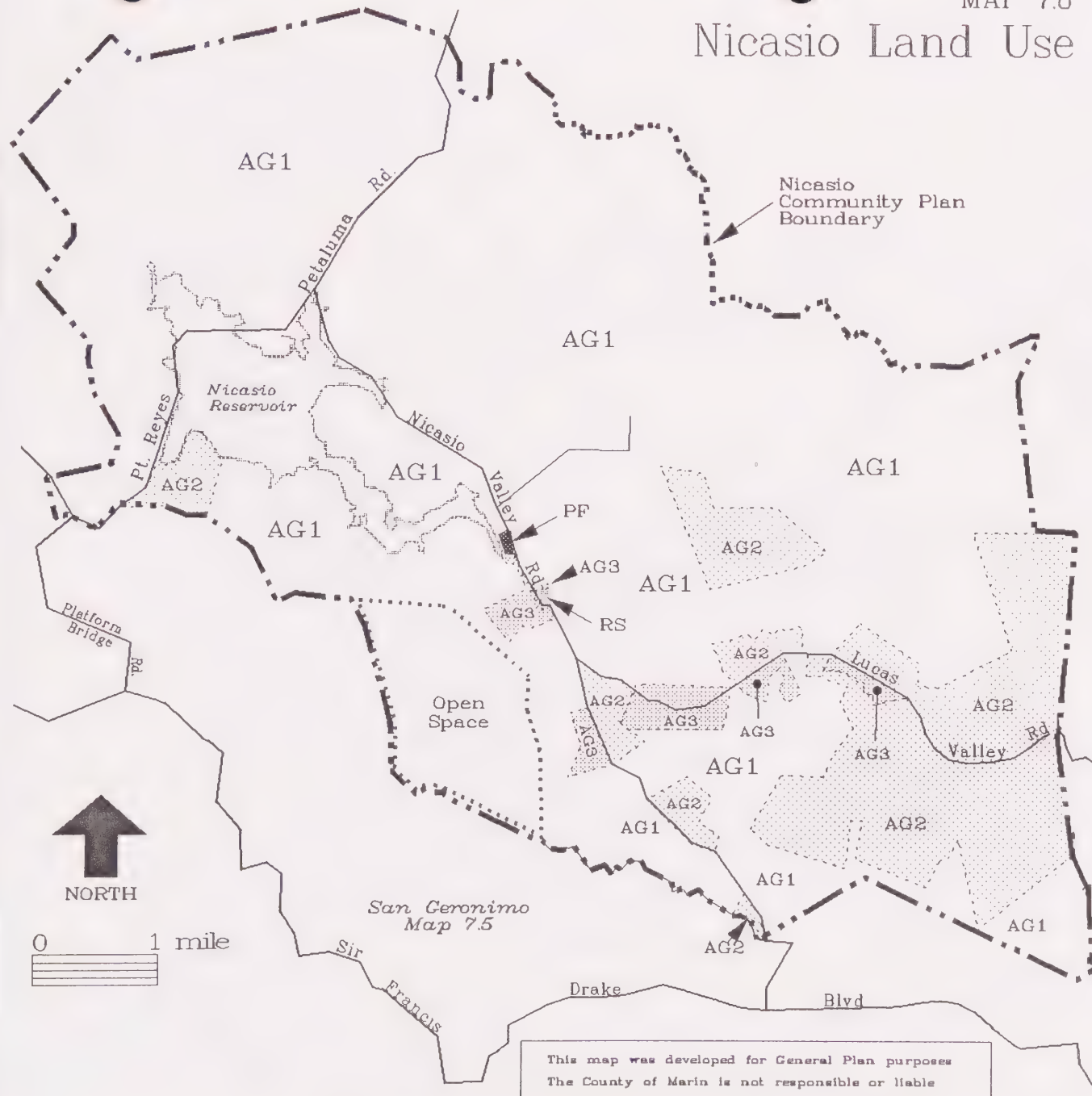


Marin County Planning Department

This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose



MAP 7.6 Nicasio Land Use Policy Map

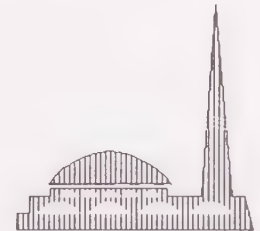


Land Use Policy 1991

	Residential Commercial (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres)	RS
	Public Facility	PF
	Agricultural (1 unit/2-10 acres)	AG3
	Agricultural (1 unit/10-30 acres)	AG2
	Agricultural (1 unit/30-60 acres)	AG1
	Open Space	
	Community Plan Boundary	
	Roads	

Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book Zoning
Overlays as of January 1991

This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.






Marin County Planning Department

Northwest Marin County Land Use Policy Map

Existing Land Use Policy 1991

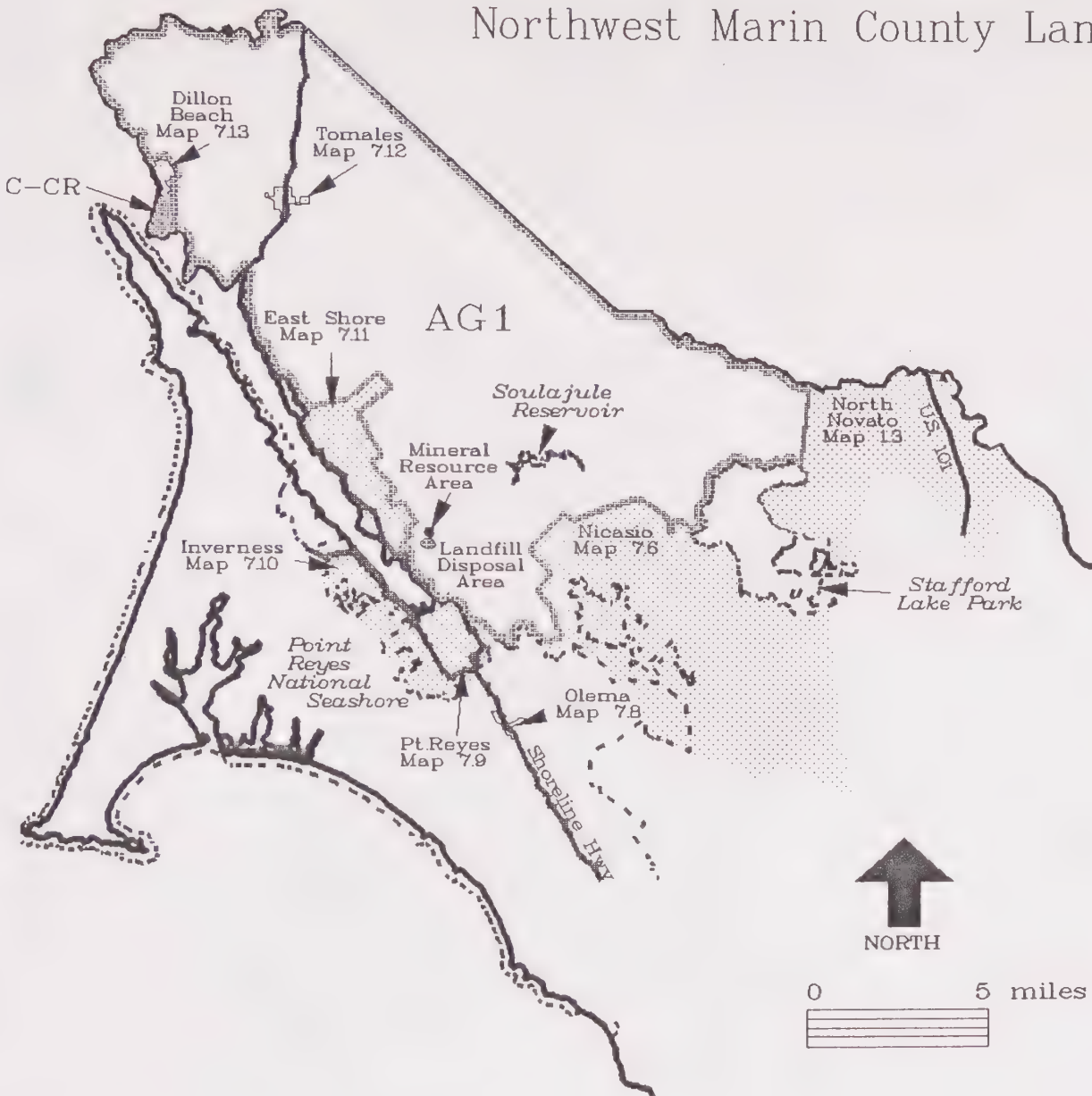
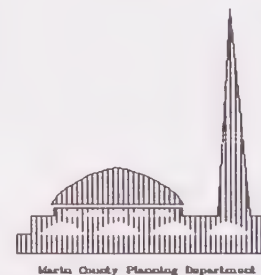
-  Areas detailed in Community Plan Maps
-  Coastal Commercial Recreational (F.A.R. = 0.005 to 0.10)
-  Open Space Areas including National, State and Regional Parks and Water District Lands
-  AG1 Agricultural (1 unit/30-60 acres)
-  Mineral Resource Area
-  Landfill Disposal Area

Comments F.A.R. = Floor Area Ratio
 Source Assessor's Parcel Book Zoning
 Overlays as of January 1991

-  Major Roads
-  County Boundary
-  Parks and Open Space







0 5 miles







This map was developed for General Plan purposes.
 The County of Marin is not responsible or liable
 for use of this map beyond its intended purpose.

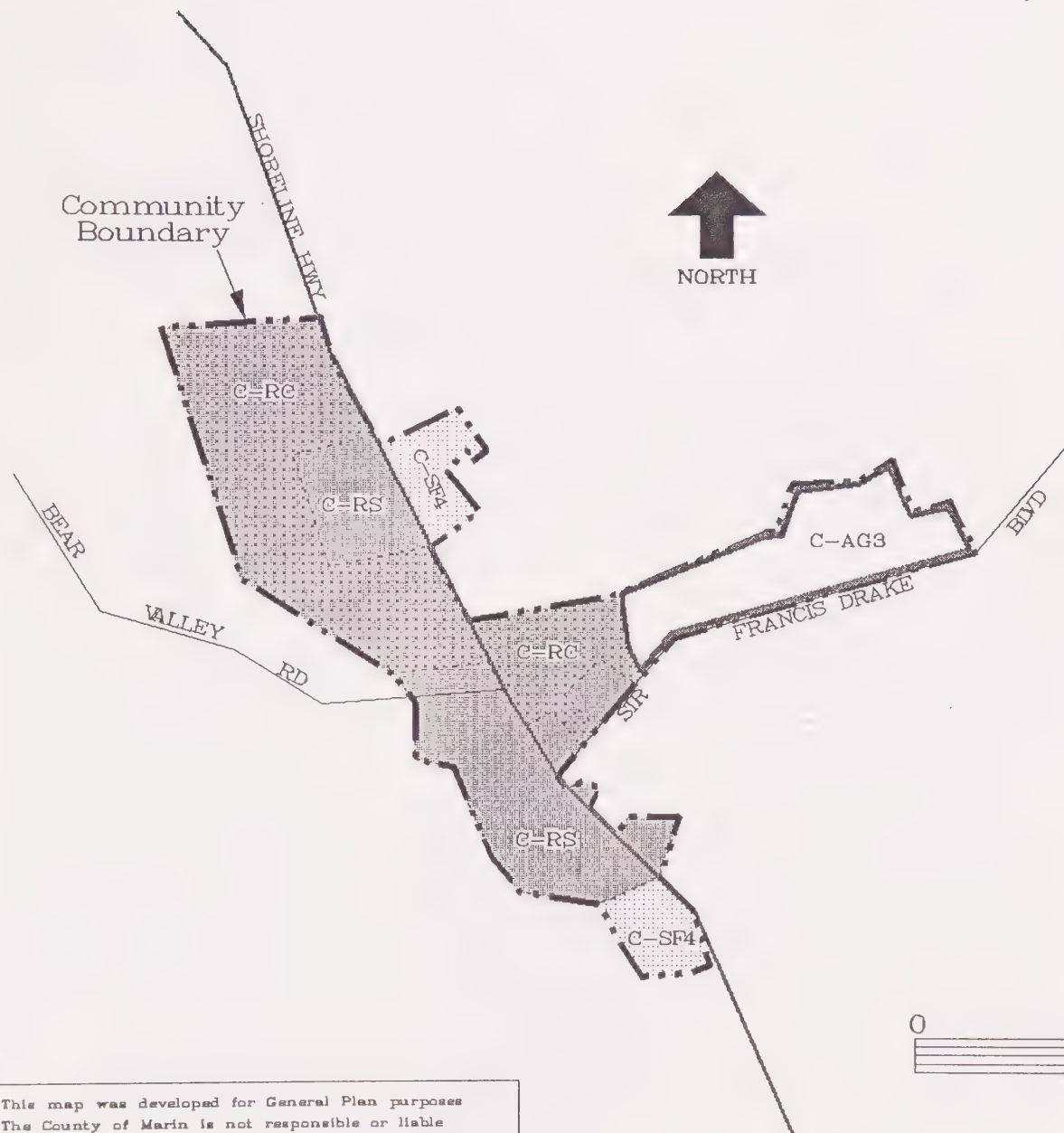
Olema Land Use Policy Map

Land Uses Policy 1991

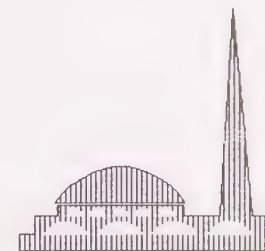
-  Coastal Single Family (1 to 2 units/acre) C-SF4
-  Coastal Residential Commercial (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres) C-RS
-  Coastal Recreational Commercial (F.A.R. = 0.05 to 0.15) C-RC
-  Coastal Agricultural (1 unit/2-10 acres) C-AG3

-  Community Boundary
-  Major Roads
-  Residential Roads

Comments FAR = Floor Area Ratio
Source Assessor's Parcel Book
Zoning Overlays as of
January 1991



This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose

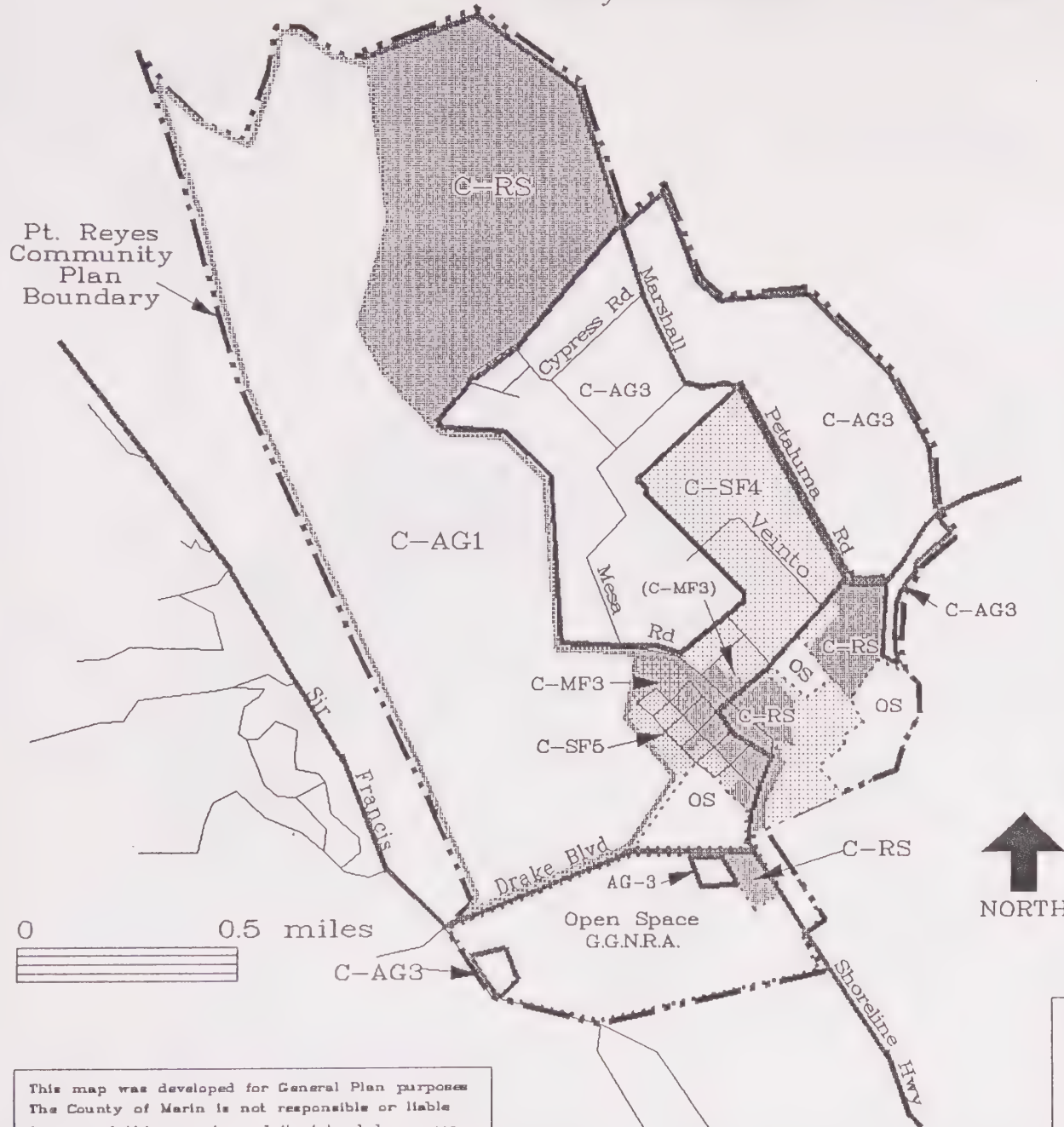


Marin County Planning Department

MAP 7.9 Point Reyes Station Land Use Policy Map

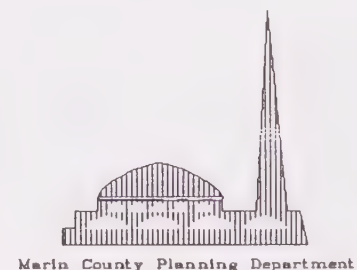
Land Use Policy 1991

	Coastal Single Family (2 to 4 units/acre)	C-SF5
	Coastal Single Family (1 to 2 units/acre)	C-SF4
	Coastal Multi-Family (5 to 10 units/acre)	C-MF3
	Coastal Residential Commercial (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres)	C-RS
	Coastal Open Space	C-OS
	Coastal Agricultural (1 unit/30-60 acres)	C-AG1
	Coastal Agricultural (1 unit/2-10 acres)	C-AG3
	Community Plan Boundary	
	Major Roads	
	Residential Roads	









This map was developed for General Plan purposes
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose




Comments
FAR = Floor Area Ratio
Source Assessor's Parcel
Book Zoning Overlays as
of January 1991

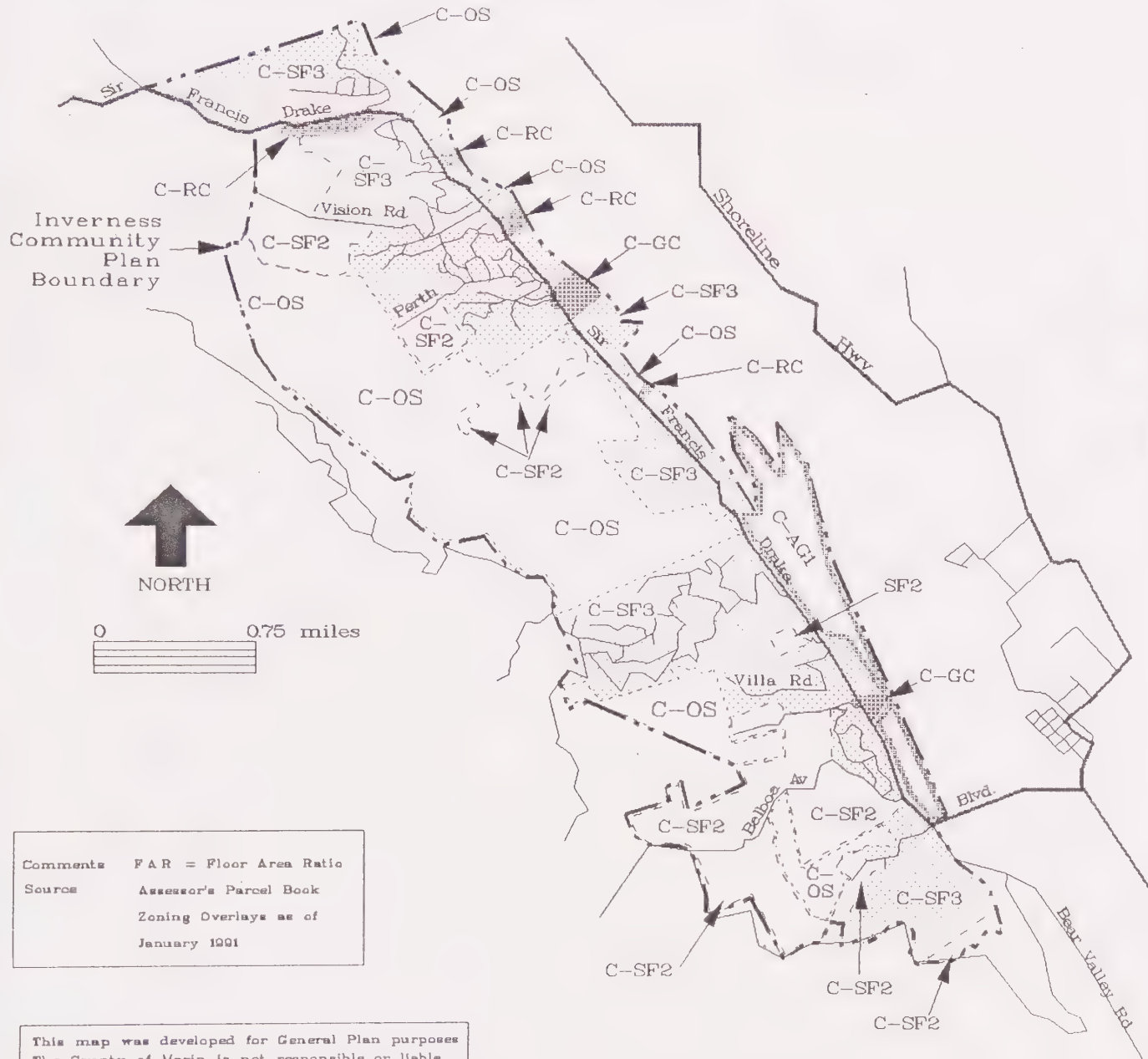


MAP 709 Inverness Land Use Policy Map

Land Use Policy 1991

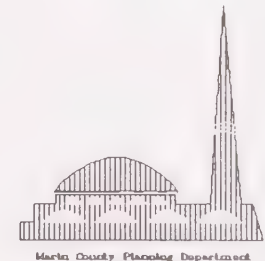
	Coastal Single Family (1 unit/1-5 acres)	C-SF3
	Coastal Single Family (1 unit/5-20 acres)	C-SF2
	Coastal General Commercial (F.A.R. = 0.05 to 0.30)	C-GC
	Coastal Recreational Commercial (F.A.R. = 0.05 to 0.15)	C-RC
	Coastal Agricultural (1 unit/30-60 acres)	C-AG1
	Coastal Open Space	C-OS

-  Community Plan Boundary
-  Major Roads
-  Residential Roads

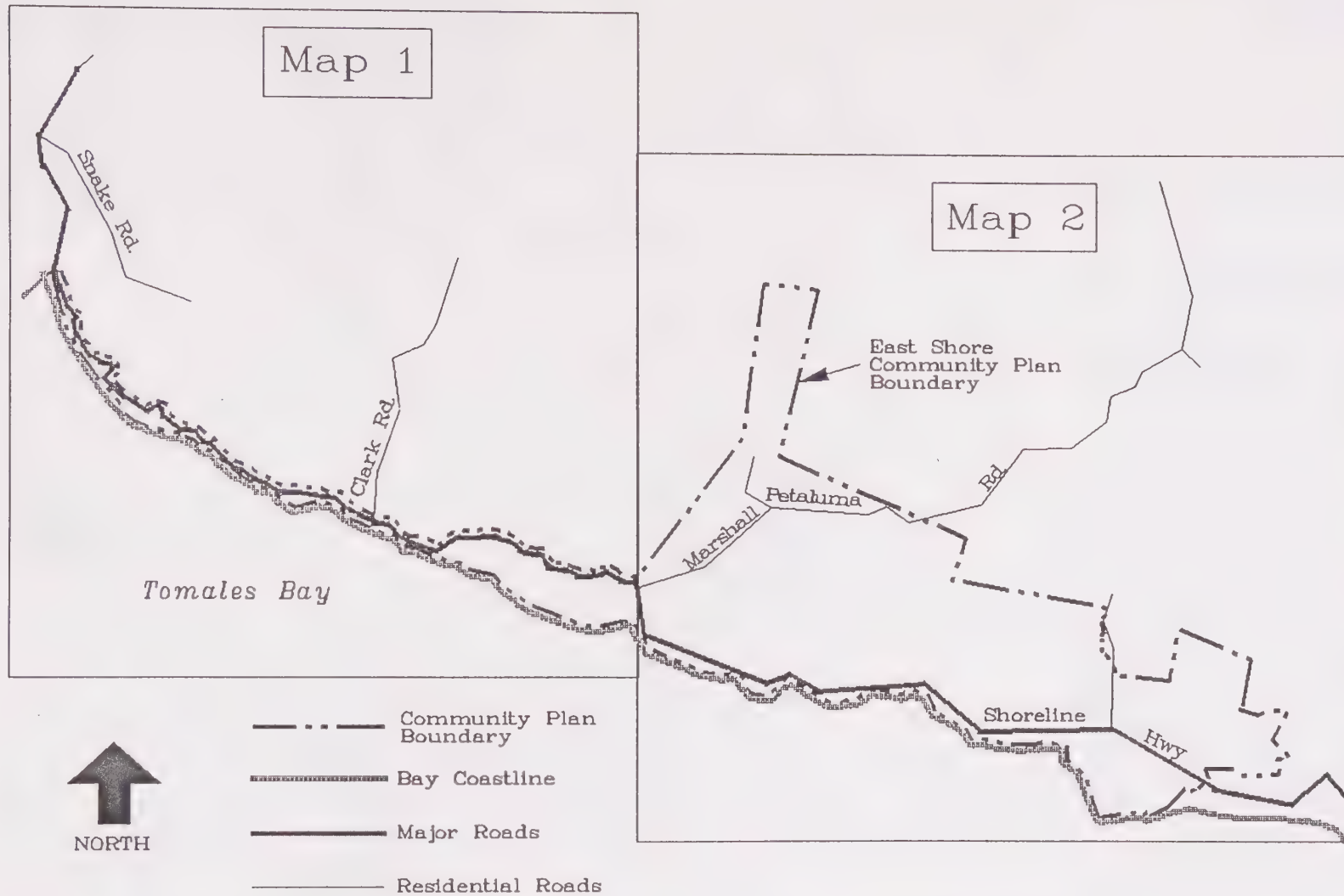


Comments FAR = Floor Area Ratio
 Source Assessor's Parcel Book
 Zoning Overlays as of
 January 1991

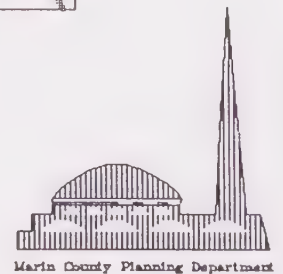
This map was developed for General Plan purposes.
 The County of Marin is not responsible or liable
 for use of this map beyond its intended purpose.



MAP 7.11.0 East Shore Land Use Policy Map Key













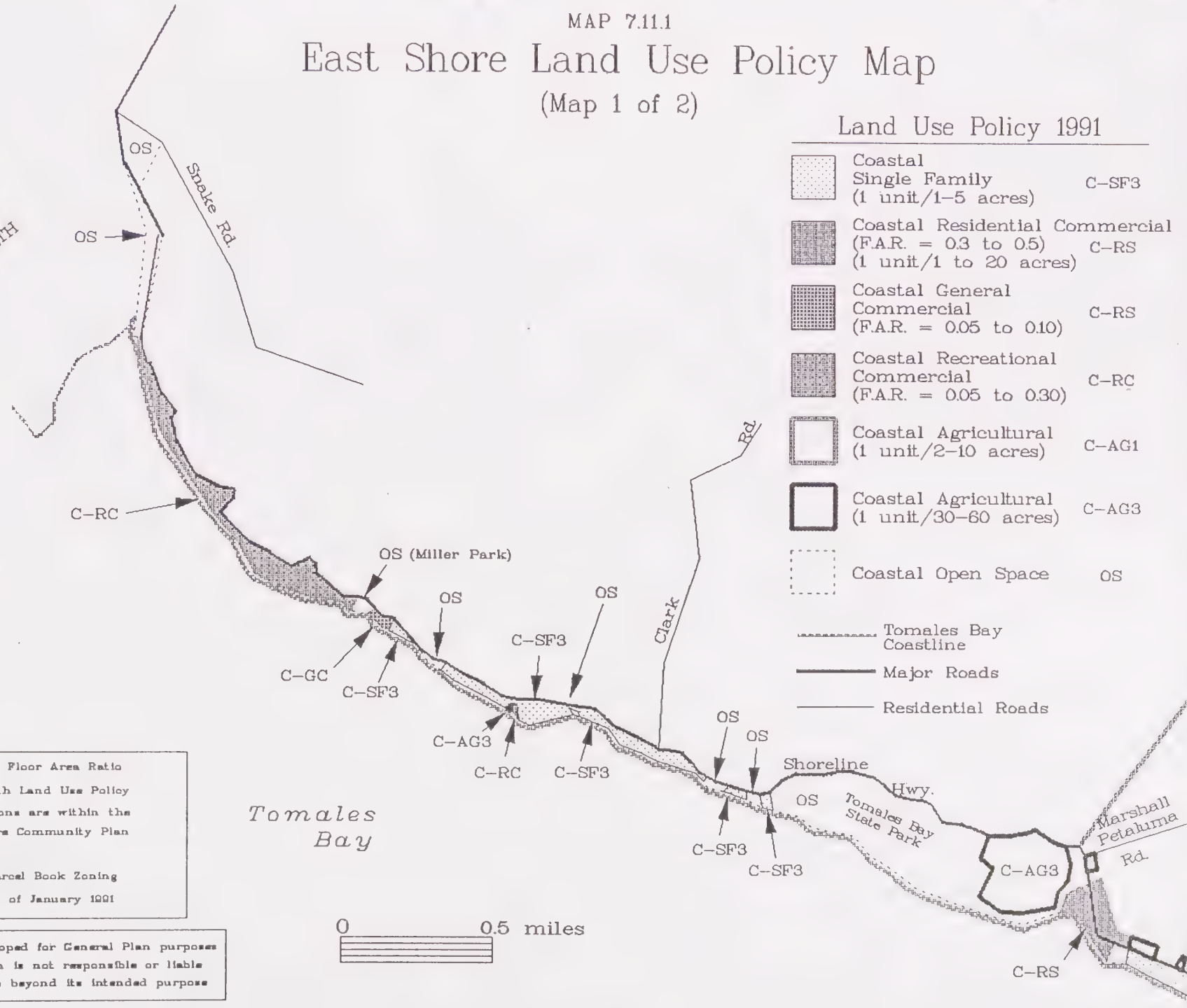
This map was developed for General Plan purposes.
The County of Marin is not responsible or liable
for use of this map beyond its intended purpose.



MAP 7.11.1
 East Shore Land Use Policy Map
 (Map 1 of 2)

Land Use Policy 1991

- | | | |
|---|---|-------|
|  | Coastal Single Family (1 unit/1-5 acres) | C-SF3 |
|  | Coastal Residential Commercial (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres) | C-RS |
|  | Coastal General Commercial (F.A.R. = 0.05 to 0.10) | C-RS |
|  | Coastal Recreational Commercial (F.A.R. = 0.05 to 0.30) | C-RC |
|  | Coastal Agricultural (1 unit/2-10 acres) | C-AG1 |
|  | Coastal Agricultural (1 unit/30-60 acres) | C-AG3 |
|  | Coastal Open Space | OS |
|  | Tomaes Bay Coastline | |
|  | Major Roads | |
|  | Residential Roads | |










Comments FAR = Floor Area Ratio
 Areas with Land Use Policy
 designations are within the
 East Shore Community Plan
 Area
 Source Assessor's Parcel Book Zoning
 Overlays as of January 1991

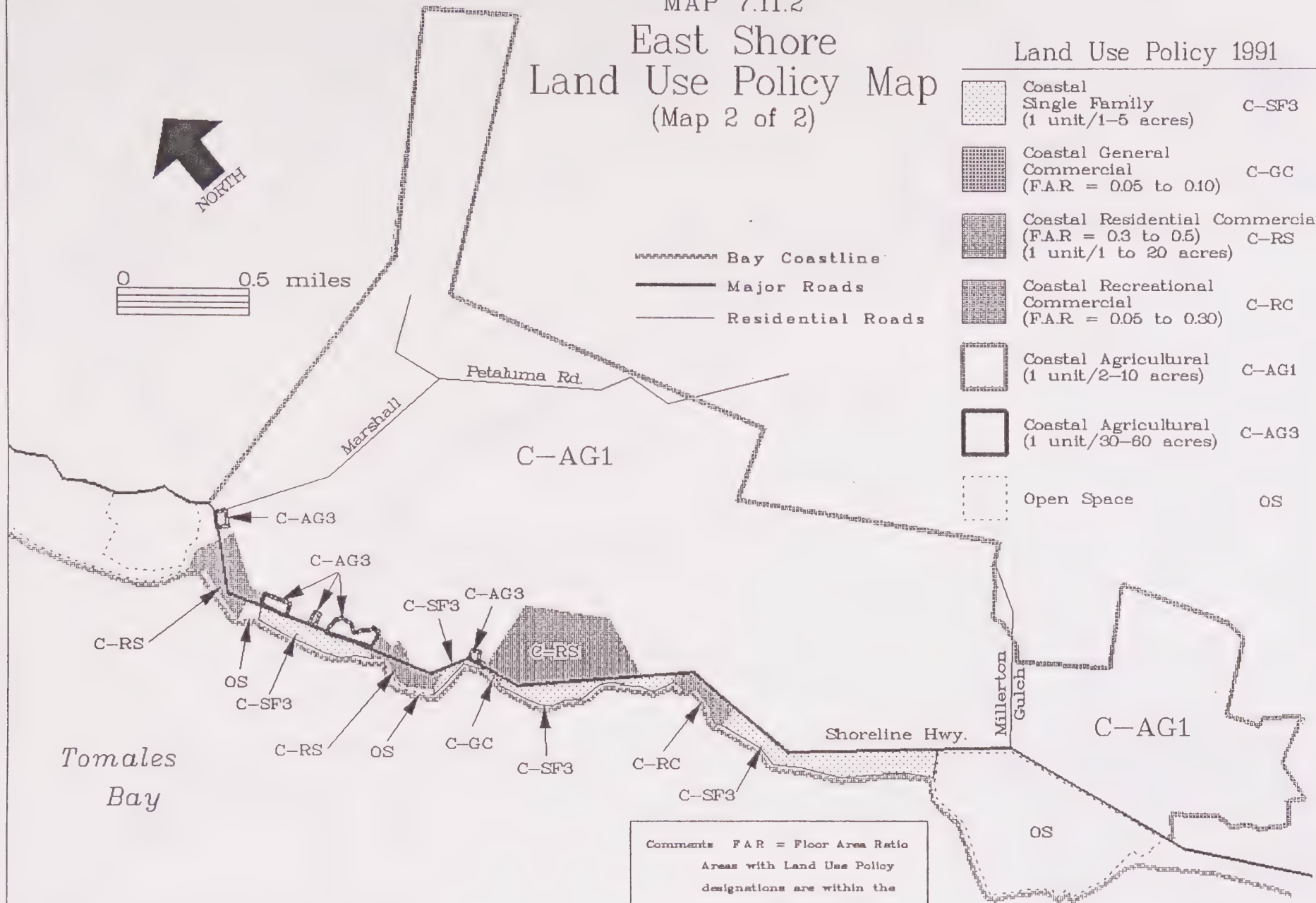
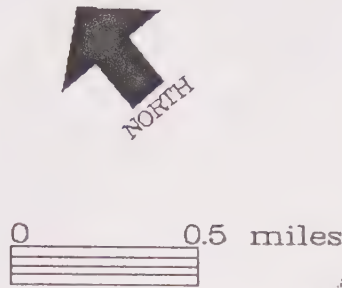
This map was developed for General Plan purposes
 The County of Marin is not responsible or liable
 for use of this map beyond its intended purpose

MAP 7.11.2 East Shore Land Use Policy Map (Map 2 of 2)

Land Use Policy 1991

	Coastal Single Family (1 unit/1-5 acres)	C-SF3
	Coastal General Commercial (F.A.R. = 0.05 to 0.10)	C-GC
	Coastal Residential Commercial (F.A.R. = 0.3 to 0.5) (1 unit/1 to 20 acres)	C-RS
	Coastal Recreational Commercial (F.A.R. = 0.05 to 0.30)	C-RC
	Coastal Agricultural (1 unit/2-10 acres)	C-AG1
	Coastal Agricultural (1 unit/30-60 acres)	C-AG3
	Open Space	OS

~~~~~ Bay Coastline  
—— Major Roads  
—— Residential Roads



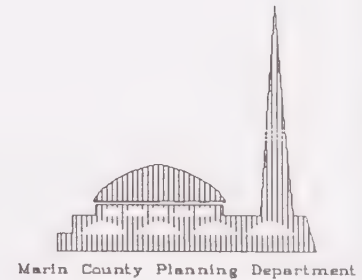
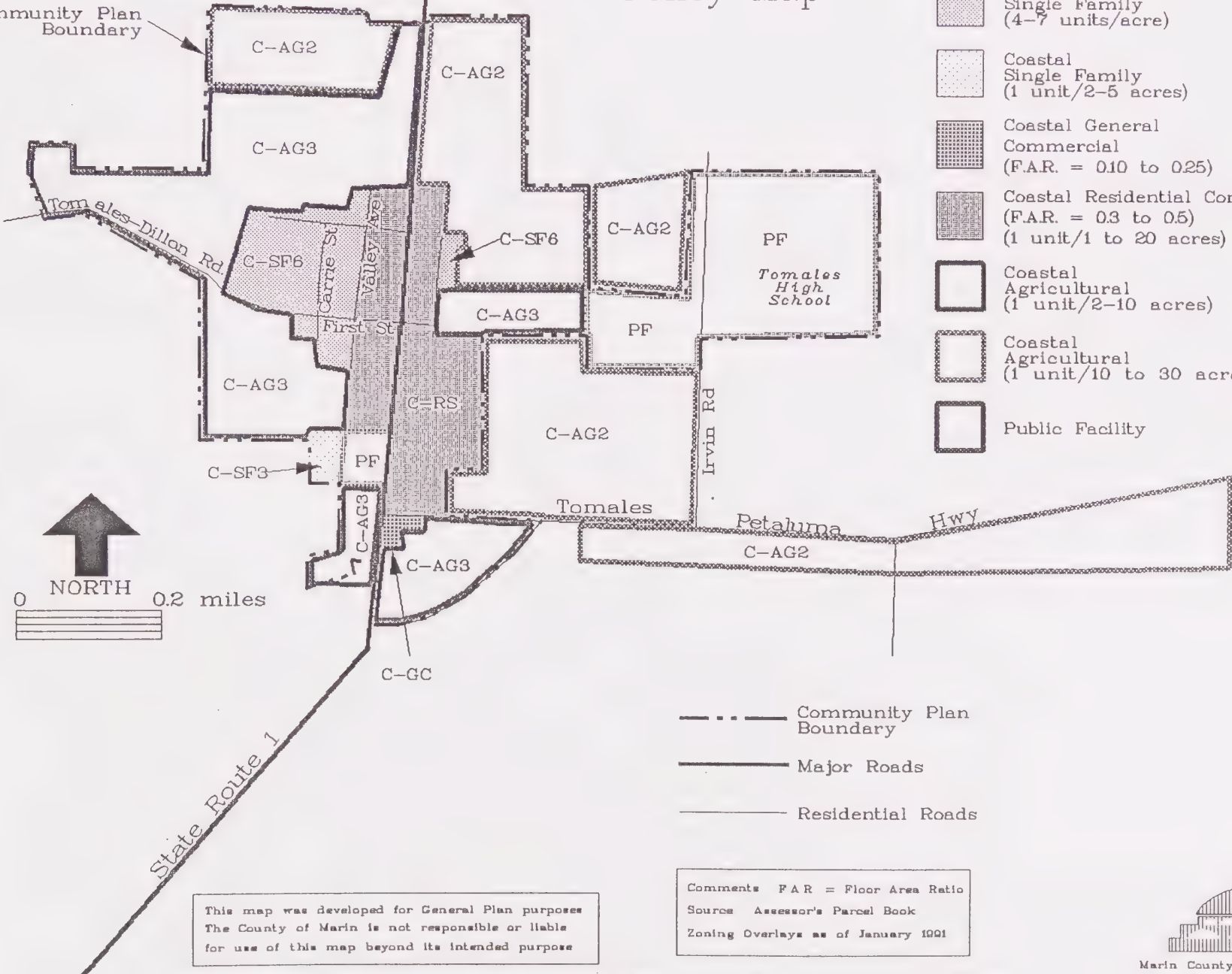
This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

Comments: F.A.R. = Floor Area Ratio  
Areas with Land Use Policy  
designations are within the  
East Shore Community Plan  
Area  
Source: Assessor's Parcel Book Zoning  
Overlays as of January 1991

# MAP 7.12 Tomales Land Use Policy Map

Land Use Policy 1991

Community Plan  
Boundary












MAP 7.13

# Dillon Beach Land Use Policy Map

## Land Use Policy 1991

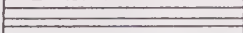
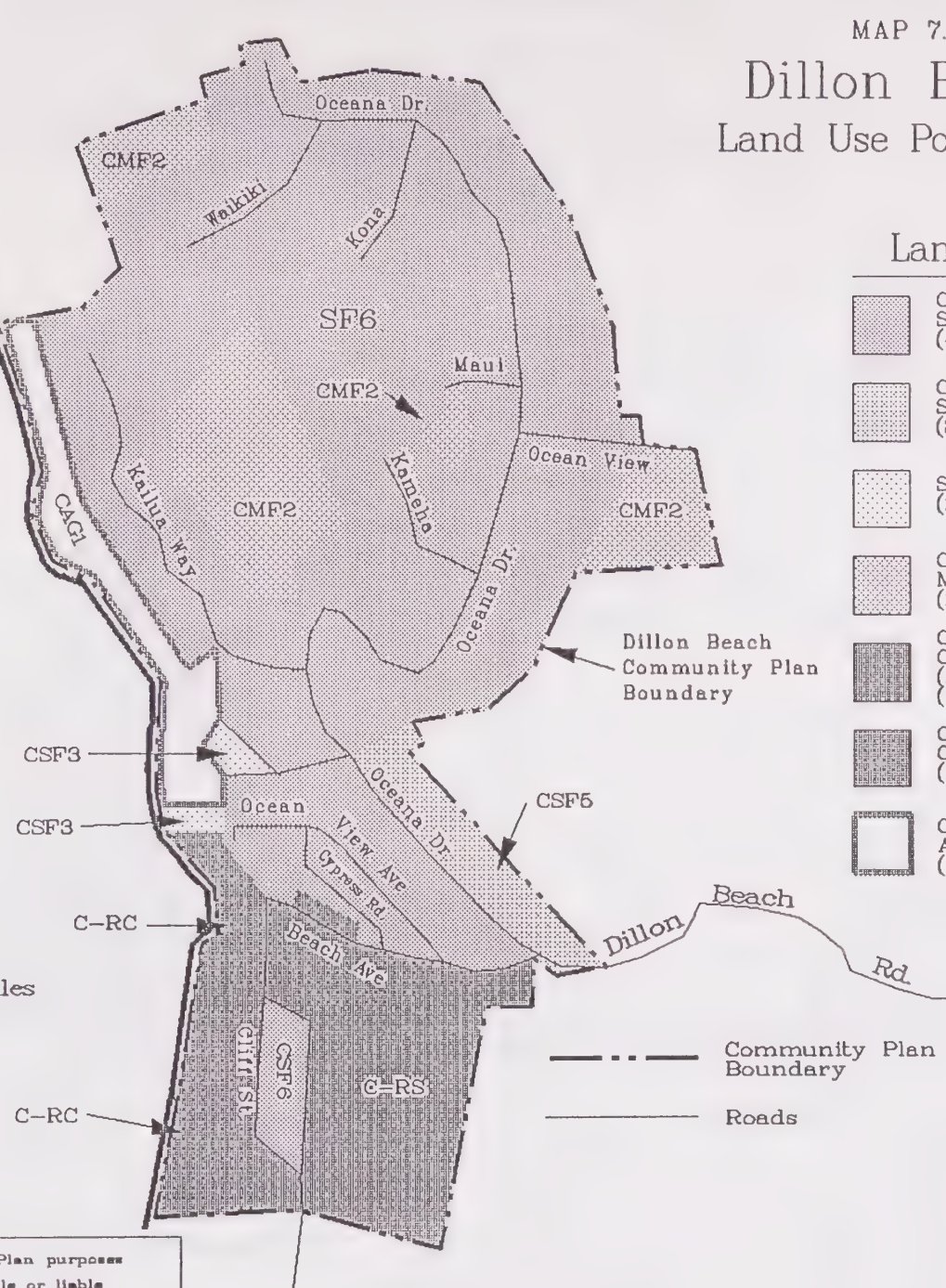
|                                                                                      |                                                          |      |
|--------------------------------------------------------------------------------------|----------------------------------------------------------|------|
|   | Coastal Single Family (4-7 units/acre)                   | CSF6 |
|   | Coastal Single Family (2-4 units/acre)                   | CSF5 |
|   | Single Family (1 unit/1-5 acres)                         | CSF3 |
|   | Coastal Multi Family (11-4 units/acre)                   | CMF2 |
|   | Coastal Residential Commercial (F.A.R. = 0.3 to 0.5)     | C-RS |
|   | Coastal Recreational Commercial (F.A.R. = 0.005 to 0.10) | C-RC |
|  | Coastal Agricultural (1 unit/30-60 acres)                | CAG1 |

**Comments**  
FAR = Floor Area Ratio  
Source Assessor's Parcel Book  
Zoning Overlays As of January 1991

Pacific Ocean

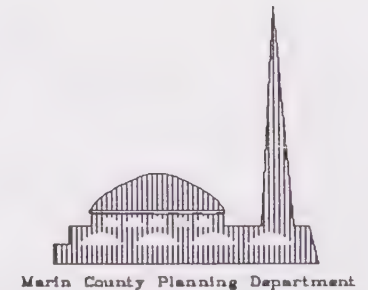


0 0.25 miles

--- Community Plan Boundary  
— Roads

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.



# **TRANSPORTATION ELEMENT**



# TRANSPORTATION ELEMENT

## TABLE OF CONTENTS

|                                                                     |    |
|---------------------------------------------------------------------|----|
| I. INTRODUCTION                                                     | 1  |
| A. LEGAL AUTHORITY                                                  | 1  |
| B. RELATIONSHIP WITH OTHER GENERAL PLAN ELEMENTS                    | 1  |
| C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS                     | 1  |
| D. ORGANIZATION OF THE ELEMENT                                      | 2  |
| E. POLICY HISTORY                                                   | 2  |
| F. PRIOR EMPHASIS AND ACHIEVEMENTS                                  | 3  |
| 1. Implementation of the 1982 Countywide Plan                       | 3  |
| 2. The Highway 101 Corridor Study and Sales Tax<br>Expenditure Plan | 5  |
| G. CURRENT TRANSPORTATION PLANNING EFFORTS                          | 6  |
| 1. The Highway 101 Corridor Study                                   | 6  |
| 2. The Congestion Management Program                                | 6  |
| II. EXISTING CONDITIONS                                             | 7  |
| A. HIGHWAY 101 AND SELECTED ARTERIALS                               | 7  |
| 1. Level of Service on Highway 101                                  | 7  |
| 2. Level of Service on Selected Arterials                           | 9  |
| B. PUBLIC TRANSIT SERVICE                                           | 11 |
| C. PUBLIC TRANSIT RIDERSHIP                                         | 12 |
| D. PARATRANSIT                                                      | 12 |
| III. PROJECTIONS                                                    | 13 |
| A. HIGHWAY 101 AND SELECTED ARTERIALS                               | 13 |
| 1. Projected Level of Service of Highway 101                        | 13 |
| 2. The Recommended Plan for the 101 Corridor                        | 13 |
| 3. Projected Level of Service on Selected Arterials                 | 16 |
| B. PUBLIC TRANSIT                                                   | 16 |
| C. RECOMMENDED IMPROVEMENTS                                         | 17 |
| 1. Short Range Capital Improvement Program                          | 18 |
| 2. Long Range Capital Improvement Program                           | 18 |
| 3. Sources of Transportation Funds                                  | 22 |
| IV. OBJECTIVES, POLICIES AND IMPLEMENTATION PROGRAMS                | 30 |



## LIST OF TABLES

|                                                                                                  |    |
|--------------------------------------------------------------------------------------------------|----|
| T-1. Level of Service on Highway 101, 1991 Evening Peak Hour                                     | 9  |
| T-2. Projected Level of Service on Highway 101                                                   | 15 |
| T-3. Funded Improvements in 1990 State Transportation Improvement Program                        | 19 |
| T-4. Transit System Improvements Five Year Short Range Transit Plan, Golden Gate Bridge District | 20 |
| T-5. Bicycle and Pedestrian Facility Improvements                                                | 21 |
| T-6. Unfunded, Recommended Highway and Local Road Improvements                                   | 23 |
| T-7. Recommended Projects, Estimated Costs, & Proposed Funding for Capital Improvement Program   | 27 |

## LIST OF FIGURES

|                                                   |   |
|---------------------------------------------------|---|
| TR-1. Major Transportation Routes in Marin County | 8 |
|---------------------------------------------------|---|

## I. INTRODUCTION

The Transportation Element discusses the history of transportation planning within Marin County, describes the factors which have led to the existing conditions on the roadways and public transit, and recommends policies and programs to provide an effective transportation system in the future. The primary purpose of this element is to recommend policies and programs which will resolve the transportation requirements of Marin from a countywide perspective.

### A. LEGAL AUTHORITY

Section 65302 (b) of the California Government Code requires that general plans contain a circulation element "consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the plan."

### B. RELATIONSHIP WITH OTHER GENERAL PLAN ELEMENTS

The Transportation Element is closely linked with the Community Development Element to ensure that both land use and transportation policies are consistent and mutually reinforcing. The projected amount of development (called "buildout") shown in the Community Development Element was tested against the recommended transportation system. The system is designed to accommodate buildout under current local general plans and policies. Projections of vehicle counts and vehicle miles traveled will be used to show the impact on air quality that will shape air quality policies and programs in the Environmental Quality Element. Projections of vehicle counts will also be tested for their noise impacts and will shape policies and programs in the Noise Element.

### C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

This element is supported by five technical reports:

Transportation Element Technical Report #1 The Transportation System and Transportation Modeling: Describes the concepts and terms used in transportation planning and discusses the modeling process.

Technical Report #2 Travel Patterns in Marin and Sonoma Counties: Describes the results of a travel behavior survey of Marin and Sonoma County residents, including the number of trips generated and location of the origin; destination; trip type; and mode of trips taken during the peak commute period and hour.

Technical Report #3 Existing Conditions: Assesses the performance of the transportation system in 1987, the base year for transportation modeling, and discusses the level of service on the freeway and local road intersections, transit ridership, paratransit service, capital improvements, and trends in travel behavior since 1980.

Technical Report #4 Transportation Impacts of the Preferred Land Use Alternative: Describes the results of a modeling exercise which takes the total potential development of the county (the buildout) plus year 2010 development from other Bay Area counties and assigns the travel to a transportation system recommended in this plan.

Technical Report #5 Bicycle Transportation in Marin: Discusses the bicycle as an alternate form of transportation for Marin County with recommended policies and capital improvements needed for completion of a countywide bicycle facility network.

#### D. ORGANIZATION OF THE ELEMENT

This element is organized chronologically, beginning with a description of the County's historic approach to transportation issues, policies in earlier plans, and past achievements. Next, the element covers current transportation planning efforts and recent trends leading to the existing conditions. Section II includes discussions of the system performance of Highway 101, local arterials, transit, and paratransit. Section III presents the results of modeling the land use projections in the Community Development Element with the recommended transportation system. The transportation system improvements needed to complete this system are shown in a Capital Improvements Program, along with an estimate of their costs and potential funding sources. The final section of this element details County objectives and policies, and the programs recommended for implementation of the policies.

#### E. POLICY HISTORY

The transportation policies of the 1982 Countywide Plan originated in the 1973 Countywide Plan. In the 1973 plan, County residents and elected officials decided to make a fundamental break from earlier policies governing community development and transportation.

Relatively rapid growth during the 1950s and 1960s had produced undesirable impacts on the county, particularly in terms of environmental quality. Projected growth would have resulted in severe traffic congestion unless additional freeways and major arterials were built. At the time, freeway extensions were proposed for State Route (SR) 1,

Shoreline Highway, between Tamalpais Valley and Point Reyes, for Interstate 580 between San Rafael and Point Reyes, and for Highway 37 between Novato and Point Reyes. Traffic from projected development would have necessitated widening Highway 101 to eighteen lanes at the Golden Gate Bridge. Proposals for a second bridge to San Francisco or an additional deck on the Golden Gate Bridge were under consideration. Marin residents opposed the projected level of growth by downzoning land, primarily in West Marin, to very low density agricultural uses; acquiring land for parks and open space; and opposing proposals for new freeways.

Policy emphasis in 1973 shifted from accommodation of the automobile to provision of transit alternatives. Transportation policies in the 1973 plan called for limiting the expansion of Highway 101 to eight lanes and creating an exclusive transit route for buses on the Northwestern Pacific Railroad right-of-way parallel to the freeway. Policies called for greatly expanding transit while not significantly expanding the street system in order to maintain levels of mobility and serve additional trip generation.

The 1982 Plan policies continued and expanded upon 1973 Plan policies, with emphasis on substitution of transit service and carpool lanes for road widenings. The relative scarcity and high price of gasoline during the late 1970s reinforced the County's desire to seek alternatives to single-occupant automobiles as the primary mode of transportation. Policy consideration of alternate modes of transportation extended to carpools, vanpools, bicycles, and walking. Examples of policies included: "Increased use of carpools should be encouraged, with a goal of 100% expansion for local travel and 50% expansion for transbay trips from the rates found in 1980" and "Bicycle use and walking should be encouraged as significant modes of transportation and should be encouraged for shorter daily trips to work, shopping, and other activities." Other policies called for expanded transit service, including ferry service to San Francisco, and completion of two High Occupancy Vehicle (HOV) lanes, carpool lanes, from the Richardson Bay Bridge through Novato. The Northwestern Pacific Railroad right-of-way was designated as a transportation corridor. The Plan mentioned rail use of the right-of-way, but deemed development of the right-of-way inappropriate until after the HOV lanes were completed.

## F. PRIOR EMPHASIS AND ACHIEVEMENTS

### 1. Implementation of the 1982 Countywide Plan

At the time the 1982 plan was written, the country was slowly recovering from an "energy crisis," resulting from high gasoline prices and uncertain supply. As the decade of the 1980s progressed, the energy crisis dissipated because gasoline supplies increased and gasoline prices fell relative to other prices.



Commuting patterns shifted as a result of suburban job growth. With gasoline prices remaining low, commuters chose to drive alone, rather than take transit or carpool. Although the 1982 Countywide Plan called for increased transit and carpooling, the use of transit and carpooling did not increase in the 1980s. The result was a large number of vehicles on the roads, more vehicles than some roads could accommodate during the morning and evening peak commute hours. Traffic congestion worsened because sufficient funding was not available to increase the capacity of the highway system.

Lack of funding has limited the expansion of transit service, bike lane construction, and carpool programs, in addition to limiting the possibility of road expansion to accommodate the automobile. Only modest improvements were made to the roads during the 1980s with pre-programmed local, State, and Federal funds. The 1982 Transportation Element was explicit about the need for additional funding and the document stated: "New sources of funding must be found; if they are not, serious congestion problems will occur in the next decade." New sources of funding were not found and the congestion occurred as predicted.

Transportation system improvements achievable within limited available funds followed the policies of the 1982 plan and included: road widening, freeway interchange improvements, better signalization on local streets, increased transit service, and bikeway construction.

Since adoption of the 1982 plan, the most serious bottleneck in the transportation system for northbound traffic has been relieved by expanding the capacity of Highway 101 between Central San Rafael and the Civic Center. In addition, seven miles of dual High Occupancy Vehicle (HOV) lanes on Highway 101 have been constructed between North San Pedro Road and Highway 37 in Novato. Initial funding has been allocated for HOV lanes between Mission Avenue and North San Pedro Road in San Rafael. Funding has also been allocated for auxiliary lanes which parallel the HOV lanes between North San Pedro Road and Miller Creek Road and northbound between Sir Francis Drake Boulevard to Interstate 580. Highway 101 interchange improvements have been made at the intersections of Tamalpais Drive, Rowland Boulevard, Tiburon Boulevard, Ignacio Boulevard, and Seminary Drive. Several arterial streets have been widened, generally for the purpose of installing left turn lanes and, in a few cases, to create more traffic lanes. Traffic signals have been upgraded to improve traffic flow along Sir Francis Drake Boulevard. A connector road was completed linking Los Ranchitos Road to Lincoln Avenue in San Rafael. This road provides a much needed parallel route to Highway 101, in case of emergency or severe traffic congestion.

The Marin County Transportation System Management Task Force drafted a Transportation System Management (TSM) program between 1987 and 1989, in an effort to encourage more carpooling and transit use. To implement the program and create a TSM Agency for administration of the program, a TSM ordinance was written and a joint powers agreement drafted for the local governments. The next step in implementing the program is submission of the Joint Powers Agreement and ordinance to the cities and County for approval. To date, no funding is available for implementation of the program.

Local transit service has suffered from a lack of stability in funding. The serious decline in ridership during the early 1980s was partially due to inadequate funding. Since 1984, additional service has been provided through an annual infusion of \$600,000 of County general funds to create a \$1.4 million package. Ridership on local routes has been steadily improving since 1984, the year it reached a historic low. Transbay transit service to San Francisco experienced a sharp decline in ridership between 1980 and 1990.

## 2. The Highway 101 Corridor Study and Sales Tax Expenditure Plan

The Highway 101 Corridor Study, undertaken between 1983 and 1989, was a six-year effort to devise a strategic transportation improvement plan for the transportation corridor through Marin and Sonoma Counties. Officials from local governments in Marin, Sonoma, and San Francisco Counties, and officials from regional and State agencies studied alternatives for meeting the transportation needs of all three counties in a 20-year time period. The committee undertook an extensive evaluation of highway improvements, increased bus and ferry service, and several rail transit options. It concluded that the most effective and acceptable transportation solution for the three counties would be a combination of increased bus and ferry service, completion of the High Occupancy Vehicle (carpool) lanes on Highway 101, rail transit linking Marin and Sonoma Counties, and no additional vehicle capacity on the Golden Gate Bridge. The Committee submitted this recommendation to the elected officials of Marin and Sonoma Counties as the "Preferred Alternative."

In August of 1989, Marin elected officials created a Marin County Transportation Authority to draft a Sales Tax Expenditure Plan, in preparation for proposing a sales tax increase to the voters. The Transportation Authority was to implement the Plan if the tax were approved by the voters. The proposed Sales Tax Expenditure Plan included the recommendations from the Highway 101 Corridor Study Committee in addition to the following features:

Increased paratransit service for Marin residents with special transportation needs;

A Transportation System Management Program to reduce travel demand;

A local "set aside" to provide funding for local streets and roads and local transit service; and,

A countywide planning agency to manage growth, establish traffic mitigation fees, and achieve traffic Level of Service standards.

The Transportation Authority submitted the Sales Tax Expenditure Plan to the voters in November of 1990. The voters turned down the proposed sales tax increase.

#### G. CURRENT TRANSPORTATION PLANNING EFFORTS

##### 1. The Highway 101 Corridor Study

After the defeat of the sales tax measure, the Highway 101 Corridor Study Committee reconvened to consider alternative solutions to transportation problems in the North Bay. The Committee is deliberating about modifications to the previously adopted transportation plan and whether to recommend placing another transportation improvement plan before the voters in 1992.

##### 2. The Congestion Management Program

The passage of Proposition 111 in June 1990 requires county governments in urban areas to designate a countywide public agency to create, administer, and update a countywide Congestion Management Program (CMP).

The County and eleven cities designated the Countywide Planning Agency as the Congestion Management Agency. The Agency is scheduled to adopt the CMP in the Spring of 1992. Under the provisions of the CMP, local governments are required to adopt a Trip Reduction Ordinance by May of 1992, monitor traffic impacts on an annual basis, and adopt a seven year Capital Improvement Program (CIP). The transportation improvements recommended in the Countywide Plan are consistent with the CIP adopted under the CMP.



## II. EXISTING CONDITIONS

### A. HIGHWAY 101 AND SELECTED ARTERIALS

The existing transportation system (1991) meets the needs of Marin County travelers for the majority of trips, during most hours, everyday of the week. However, significant congestion does exist on a limited number of streets at peak travel hours. Significant congestion currently exists during morning and/or afternoon peak hours on two segments on Highway 101, major portions of Sir Francis Drake Boulevard, and about half a dozen other streets. A more detailed description of these conditions follows and major transportation routes are illustrated in Figure TR-1.

#### 1. Level of Service on Highway 101

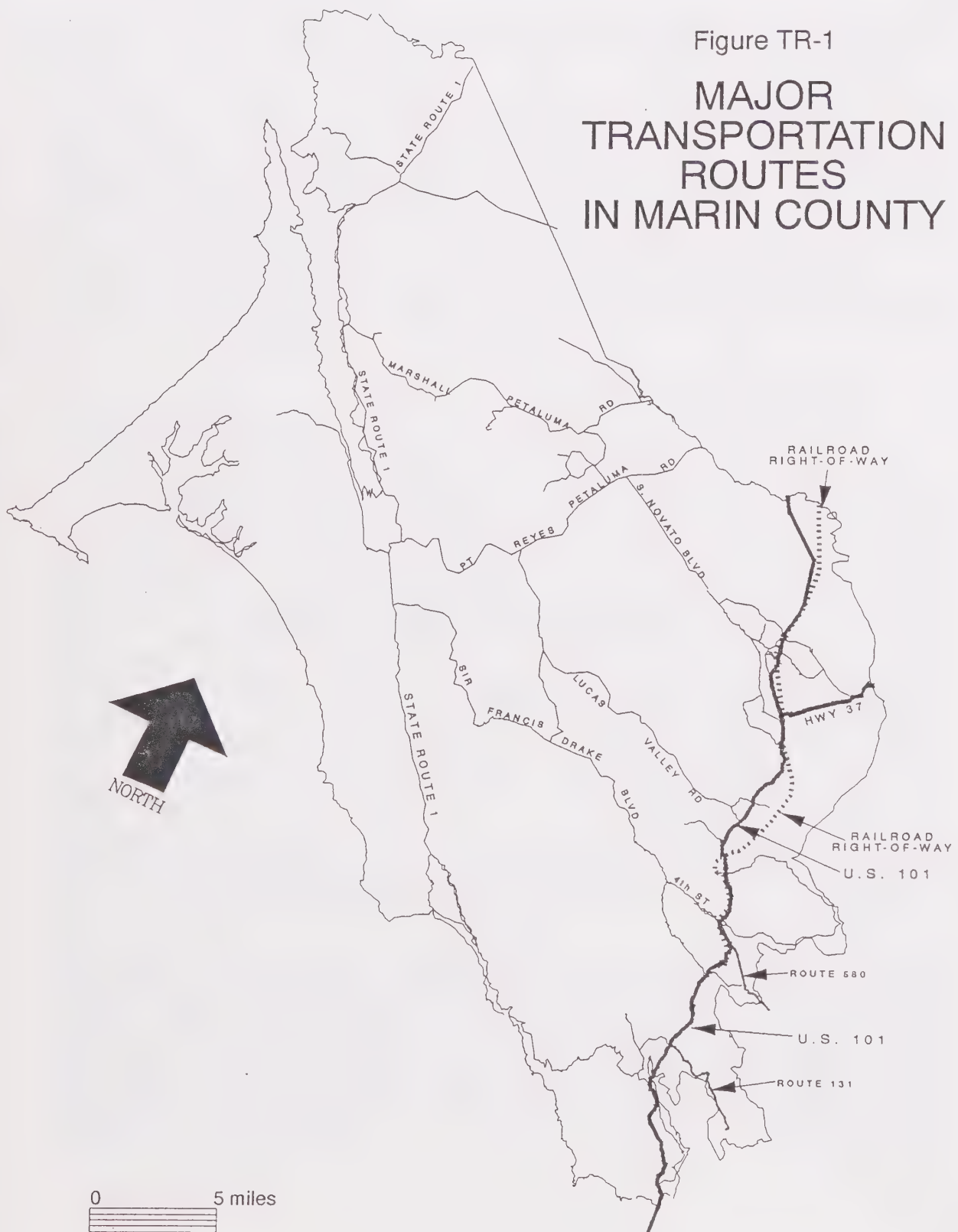
Level of Service is a concept used by traffic engineers to measure the amount of congestion which occurs on a freeway or city street. Service levels are ranked in grades from A to F with Levels A or B indicating little or no congestion and levels E and F indicating severe congestion and long delays for motorists. Level of Service is determined by the ratio of the traffic volume to available roadway capacity (V/C Ratio). A full description of Level of Service and V/C Ratio is given in Technical Report #1: The Transportation System and Transportation Modeling.

Table T-1 shows the existing afternoon peak hour V/C Ratio and Level of Service at selected points on Highway 101. The points at which the counts were made along Highway 101 are called screenlines. They are the entrances to the county at the Golden Gate Bridge and Sonoma County line in addition to the hills that separate the Planning Areas of the Countywide Plan. Pacheco Hill is between Marinwood and Novato. Puerto Suello Hill is between Downtown San Rafael and Terra Linda. Cal Park Hill is between the Larkspur Landing Ferry Terminal and Downtown San Rafael. Alto Hill, also known as "Horse Hill", is between Mill Valley and Corte Madera.

A review of Table T-1 shows that Highway 101 has Level of Service F, severe congestion, at Cal Park Hill between Larkspur and San Rafael during the evening peak hours. Along this portion of the highway, demand for space exceeds capacity. Northbound Highway 101 narrows from four lanes to three and many vehicles enter from Sir Francis Drake Boulevard. The effect is that traffic backs up into Corte Madera and moves very slowly through San Rafael. Recent counts also show a backup in the northernmost portion of the county.



Figure TR-1  
**MAJOR  
TRANSPORTATION  
ROUTES  
IN MARIN COUNTY**



Highway 101 also experiences congestion during morning peak hours at Puerto Suello Hill near the Civic Center. Southbound traffic backs up to Freitas Parkway and occasionally as far north as Marinwood at morning peak hours.

**Table T-1. Level of Service on Highway 101  
Existing (1991), Evening Peak Hour**

| Screenline         | Volume/Capacity Ratio | Level of Service |
|--------------------|-----------------------|------------------|
| Marin/Sonoma line  | 1.01                  | F                |
| Pacheco Hill       | .90                   | D                |
| Puerto Suello Hill | .87                   | D                |
| Cal Park Hill      | 1.10                  | F                |
| Alto Hill          | .80                   | D                |
| Golden Gate Bridge | .88                   | D                |

Sources: The 1991 counts at the Golden Gate Bridge and Sonoma County line were made by DKS Associates in preparation of the Congestion Management Program. Other counts were made in 1987 by Caltrans for the Highway 101 Corridor Study.

## 2. Level of Service on Selected Arterials

Arterials are signalized streets that primarily serve through traffic and provide limited access to adjacent property. An arterial may be a width of two, four, or six lanes, depending on the volume of traffic it is designed to carry. Major arterials are usually divided by a median strip, have a limited number of driveways, and typically serve traffic volumes of 10,000 to 50,000 vehicles per day. Secondary arterial streets may not be divided and usually serve traffic volumes of 5,500 to 20,000 vehicles per day. The number of lanes, on-street parking, driveways, and regulation of traffic at intersections have an effect on traffic flow on arterials. Using the counts of traffic volume and estimated capacity of the arterial segment between two intersections, traffic engineers can determine Level of Service on an arterial segment. A more precise measurement of service level can be determined for intersections using detailed traffic turning movement data.

While most arterials in the County operate with limited congestion in 1991 (Level of Service D or better), significant peak hour congestion does occur on a daily basis in several areas. This analysis focuses on streets in the unincorporated area of the county and includes only a limited discussion of streets within city limits which were congested in 1991.

The arterials in the unincorporated areas of the county with Level of Service F in 1991 include:

Shoreline Highway (SR 1) from Highway 101 to Flamingo Road in Tamalpais Valley; and,

Sir Francis Drake Boulevard from Highway 101 to Bon Air Road in Greenbrae.

The City of Larkspur has a general plan policy prohibiting the widening of Sir Francis Drake Boulevard through the Greenbrae area and recognizes that the existing service level F condition will continue into future years. The policies of this plan are consistent with the policies of the Larkspur General Plan.

Arterial streets within city limits which operate at Level of Service E or F in 1991 include:

East Sir Francis Drake Boulevard from Highway 101 to the Larkspur Ferry Terminal in Larkspur;

Sir Francis Drake Boulevard through the Towns of Ross and Fairfax and the City of San Anselmo;

Redhill Avenue in San Anselmo;

Bellam Boulevard at I 580 and Irwin Street at 5th and Mission Streets in San Rafael;

Bel Marin Keys Boulevard at Nave Drive, South Novato Boulevard from Rowland to Arthur Street, and Novato Boulevard from Diablo to Seventh Street in Novato.

In summary, most arterial streets operate with limited congestion, Level of Service D or better, in 1991. The factors which contribute to the congestion experienced on portions of Highway 101 and on some arterial streets during the morning and evening peak commuter hours are:

- 1) a large increase in the number of jobs in Marin;
- 2) greater reliance on the automobile as a mode of travel;
- 3) greater geographic dispersion of jobs and housing; and,
- 4) an increase in the number and percentage of people working.

The 3.4% growth in the population of Marin County from 1980 to 1990 has had a negligible influence on traffic congestion.

#### B. PUBLIC TRANSIT SERVICE

The majority of both local and transbay public transportation service is provided by the Golden Gate Bridge District. The six types of transit service are: Basic, Commute, Recreational, Ferry Feeder, Local, and Special. *Basic service* consists of four routes upon which buses travel all day, seven days a week, serving selected areas of Marin and transporting passengers to the Transbay Bus Terminal and the Civic Center in San Francisco. *Commute service* operates on seventeen neighborhood routes in Marin and Sonoma counties with service to the San Francisco Financial District and Civic Center. These buses operate only during commute periods. *Recreational service* is limited to two routes serving park and recreation areas, primarily in West Marin, on Saturdays and Sundays. *Ferry feeder service* consists of twelve routes which connect selected neighborhoods with the Larkspur, Tiburon, and Sausalito ferries. As with commute service, these buses operate only during the morning and afternoon commute periods. *Local Service* is provided under contract with the Marin County Transit District and several school districts. Twelve local service routes take Marin residents to various points within Marin County, but not to San Francisco. *Special Service* is provided on five routes for sporting events, fairs, and other infrequent events.

The Golden Gate Bridge District operates two ferry routes, one between Larkspur and San Francisco and one between Sausalito and San Francisco. Red and White Ferries operate commute services between Tiburon and San Francisco and also provide recreational services to Sausalito and other points around San Francisco Bay.

Privately owned transit service is provided from several points in Marin to the San Francisco International Airport and between San Rafael and Richmond.



## C. PUBLIC TRANSIT RIDERSHIP

Statistics from the Golden Gate Bridge and Highway District show that transit ridership for both commute service to San Francisco and local service within Marin has declined since 1980. Bus ridership into San Francisco declined 37% during the morning commute period between 6 a.m. and 10 a.m., from 9,907 passengers in fiscal year 1980 to 6,971 in 1990. Ferry ridership dipped somewhat during the early 1980s but has increased in recent years. Ferry ridership reached 1,728 passengers in 1980, dipped to 1,053 in 1983, and rose to 1,797 by 1990. In 1990, buses carried 21% of the transbay commuters and ferries carried 4.7%. The loss in transit ridership during the morning commute was due to decreased automobile operating costs (e.g. lower gasoline prices), ample affordable parking, reduced transit service, and increased transit fares. While transit ridership decreased, the number of people driving alone to San Francisco increased from 14,903 in 1980 to 17,264 in 1990. Two- and three-person carpools have been declining. Between 1980 and 1990 average daily bus ridership within Marin declined slightly on local routes, from 10,252 to 9,866.

## D. PARATRANSIT

Paratransit services are provided by the Marin Senior Coordinating Council (MSCC) and the Volunteer Center of Marin. Under contract with various agencies and organizations, the Marin Senior Coordinating Council offers rides to elderly and disabled people upon call, delivers meals to shut-ins, and transports riders to organized activities.

Under contract with various organizations during fiscal year 1985/86, MSCC provided 69,000 passenger trips. According to a January 1987 survey, 48% of the trips were to and from medical appointments. Other trips included recreation (17%), therapy (15%), shopping (12%), work (5%), and school (3%). Almost 48,000 trips were provided under contract with the Marin County Transit District. The Transit District contract calls for MSCC to offer general paratransit service on a first-come, first-served basis. During fiscal year 1989-90, 560 requests for service were denied. Unmet demand may be greater than the denial rate would suggest because consumers may postpone trips, forego trips, or decide not request trips due to previous denials or lack of information about the service.

### III. PROJECTIONS

#### A. HIGHWAY 101 AND SELECTED ARTERIALS

##### 1. Projected Level of Service of Highway 101

Projections from the Highway 101 Corridor Study and the Marin County transportation model indicate that Highway 101 will suffer serious deterioration in Level of Service unless improvements are made. According to the analysis performed for the Corridor Study, with only limited improvements in transit service and the 1991 highway capacity, the freeway will suffer 36 miles of severe congestion from Mill Valley through Santa Rosa by the year 2005. Severe congestion is defined as Level of Service F with auto speeds decreasing to twenty miles an hour or less in bumper-to-bumper traffic. The Marin County transportation model showed similar results for a projection to the year 2000, where the freeway had Level of Service E or F from Greenbrae to Novato, assuming no improvements in the existing capacity of the freeway.

The analysis of traffic impacts upon the freeway indicates that the transportation system expected to be in place by the year 2000 cannot accommodate the projected increase in travel demand without continued declines in level of service. The analysis also confirms that a significant increase in the capacity of the 101 Corridor freeway and transit system will be needed to accommodate the new development projected in the Countywide Plan.

##### 2. The Recommended Long Range Plan for the 101 Corridor

The package of transportation improvements for the 101 Corridor recommended in this plan is similar to the Preferred Alternative, which was adopted in 1989 by the 101 Corridor Action Committee, following six years of study. The Highway 101 Corridor Study examined eleven different transportation system packages to assess their relative ability to accommodate the projected travel demand in the year 2005. The transportation system for the 101 Corridor recommended in this plan includes the following new facilities:

- Rail transit service running between Santa Rosa and the Larkspur Ferry Terminal on the NWP right-of-way;

- Increased ferry service to San Francisco;

- Increased bus service, with Central and Northern Marin buses routed to deliver passengers to the train;

Completion of the High Occupancy Vehicle (carpool) lanes through Marin and north to Windsor in Sonoma County;

Auxiliary lanes between selected freeway interchanges;

McInnis Drive between the Marin Civic Center and the Rowland Boulevard interchange at Highway 101 in Novato (McInnis Drive was not included in the 101 Corridor Study plan and would only be needed and built if significant development occurs on the east side of Highway 101);

An overpass crossing Highway 101 in the Las Gallinas Valley Planning Area (Merrydale overcrossing) and a new northbound on ramp;

An extension of Andersen Drive from Jacoby Street to B Street in San Rafael;

Improvements to several interchanges with Highway 101;

New Park and Ride lots at Tamalpais Drive, Rowland Boulevard, and other locations where feasible; and,

A South Novato Boulevard overcrossing (above Highway 101) to McInnis Drive plus a second connection between Bel Marin Keys Boulevard and McInnis Drive.

The development of rail transit is based on the assumption that both Marin and Sonoma Counties will cooperate to provide transit service between the counties and to San Francisco. Train service between the two counties would require that Sonoma County purchase the Northwestern Pacific right-of-way and fund the portion of the rail system within its jurisdiction. While Marin and Sonoma Counties consider pursuing train service on the Northwestern Pacific right-of-way, Marin County should proceed with construction of the High Occupancy Vehicle lanes on Highway 101. During the rail transit decision-making process, adequate bus transit service should be provided to meet projected travel demand.

If bi-county train service is not implemented on the NWP right-of-way, Marin County will need to provide the transportation system capacity that would have been provided by the train. It is assumed that Marin County will not provide train service on its own. In this case, a bus-service equivalent to the transit service that would have been provided by the train should be provided. The additional buses would use the High Occupancy Vehicle lanes on Highway 101.



The County, in coordination with Marin's cities and towns, should also implement an aggressive Transportation System Management program to reduce vehicle demand for road space during the commute hours.

The recommended plan for the 101 Corridor has been tested as part of the Highway 101 Corridor Study and the Countywide Plan computer modeling program. The Corridor Study modeled the morning peak hour commute and the Countywide Plan effort modeled the evening peak hour commute.

The results of the Highway 101 Corridor Study, when using the general plan projections of Marin, Sonoma, and San Francisco Counties for 2005, show that a combination of rail transit and highway improvements produced Levels of Service ranging between C and F on Highway 101. If the development policies in those plans were realized, the worst congestion, Level of Service F, would occur at Puerto Suello Hill. Other areas of Highway 101 would operate with little or no congestion, Level of Service D or better.

The Countywide Plan transportation model produced similar results for northbound evening commute traffic. Highway 101 was projected to operate at Level of Service D/E at Puerto Suello Hill, and Level of Service D or better for the remaining portions. Table T-2 shows Level of Service at selected points on Highway 101. The Highway 101 Corridor Study uses the year 2005 as a projection date, while the Countywide Plan model uses "buildout" for projected development but assigns no year to buildout. The results of the two projections, each of which was based on different technical procedures, are compatible.

**Table T-2. Projected Level of Service on Highway 101**

| <b>Screenline</b>  | <b>Preferred Alternative<br/>Highway 101 Corridor<br/>Study (Morning<br/>Southbound Traffic)</b> | <b>Preferred Alternative<br/>Countywide Plan<br/>(Evening Northbound<br/>Traffic)</b> |
|--------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Marin/Sonoma line  | C                                                                                                | C                                                                                     |
| Pacheco Hill       | D                                                                                                | D                                                                                     |
| Puerto Suello Hill | F                                                                                                | D/E                                                                                   |
| Cal Park Hill      | C                                                                                                | D                                                                                     |
| Alto Hill          | C/D                                                                                              | C/D                                                                                   |
| Golden Gate Bridge | C                                                                                                | D                                                                                     |



### 3. Projected Level of Service on Selected Arterials

In preparing the Congestion Management Program, the Countywide Planning Agency modeled a land use projection for the year 2000. The purpose of the modeling exercise was to determine if any Highway 101 segments fell below Level of Service E or any arterial segments fell below Level of Service D.

The transportation model showed that, in addition to those segments which were identified in the Existing Conditions section of this Element as currently operating at service level F, four arterial segments will fall below Level of Service D in the year 2000:

Bel Marin Keys Boulevard from Highway 101 to Hamilton Drive in Novato;

Novato Boulevard from San Marin Avenue to Grant Avenue in Novato;

South Novato Boulevard from Sunset Parkway to Highway 101 in Novato;

Tiburon Boulevard from Highway 101 to Redwood Frontage Road in Tiburon.

All other arterial segments would operate at Level of Service D or better. The exceptions would be the segments identified in the Existing Conditions section as currently operating at Level of Service F. Due to the capacity limits imposed by environmental constraints, some of these segments will continue to operate at Level of Service F in the future. Bel Marin Keys Boulevard and South Novato Boulevard in Novato would improve to Levels of Service A and B, respectively, due to capacity increases. Improvements are also recommended which will increase Tiburon Boulevard's level of service to D at buildout.

### B. PUBLIC TRANSIT

The Countywide Plan transportation model estimates the use of public transit using factors developed by the Metropolitan Transportation Commission. The MTC mode choice model focuses on home to work trips, since commuters are most likely to use public transit for those trips. The term "modal split" expresses the percentage share of total trips for each mode of transportation; such as drive alone, carpool, public transit, etc. For example, an "18% transit share" would mean that transit is used for 18 out of one hundred home to work trips.

The transit system tested at buildout includes rail transit service from Larkspur Ferry to Santa Rosa, increased ferry service, and increased bus service, particularly in southern Marin. This system would be expected to attract a substantially greater number of transit riders than attracted by the current service.

As was reported in the Existing Conditions section, the greatest use of public transit occurs on commute trips to San Francisco. The model estimates that the use of transit for commute trips (average daily home-based work trips) from Marin to San Francisco will increase from 16% to 26% at buildout. Similarly, the mode split for the commute from Sonoma to San Francisco is projected to increase from 19% currently to 33% at plan buildout. This is a significant 63% increase in modal split for Marin-based trips and 74% increase in modal split for Sonoma-based trips. A second category of commute transit trips which will increase in the future is the number of trips from Sonoma to Marin. The model projects that modal split will grow from 1% currently to 4% at buildout for these trips. Transit use for local trips, estimated at just 2% currently, is projected to remain at 2% in the future, despite the significant increase in the amount of transit service tested in the buildout network.

The significant increase in modal split projected for the longer commute trips is an important contributor to the fact that Highway 101 is projected to experience only limited congestion when all highway improvements and transit services have been constructed and are in operation.

### C. RECOMMENDED IMPROVEMENTS

In order to mitigate the transportation impacts of the buildout development as recommended in the Countywide Plan and the general plans of each city, improvements to highways, local roads, and transit service in the county need to be provided. The improvements necessary to achieve the service level results on Highway 101 shown in Table T-2 have been described above and are recommended to be included in a countywide capital improvement program. In addition, improvements to the arterial street system are also recommended in order to achieve the level of service recommended in Policy T-1.1.

During the last twenty years, the County and cities have established a process for choosing and ranking road improvements. Projects are submitted to the Metropolitan Transportation Commission for inclusion in the Regional Transportation Improvement Program. In turn, the Metropolitan Transportation Commission submits accepted projects to the State of California for inclusion in the State Transportation Improvement Program. Projects included in the State Program are allocated both State and Federal funds.

## 1. Short Range Capital Improvement Program

For fiscal year 1991, the cities and County have created a Capital Improvement Program of projects to be submitted to the Metropolitan Transportation Commission. This list contains projects already adopted and funded by the State as well as projects proposed for funding. Because the funding cycle is seven years, the group of funded projects receives allocations over the seven year period. The unfunded projects may receive funding as more money becomes available.

Table T-3 lists projects which are fully funded in the 1990 Capital Improvement Program. The funds for these projects are expected to be made available over the seven year funding cycle.

Table T-4 lists transit improvements proposed by the Golden Gate Bridge District in its Five Year Short Range Transit Plan. The funding for these projects is not guaranteed but is expected to be available from a combination of Golden Gate Bridge toll revenue and Federal subventions. The timing of the funding for these projects may take longer than five years to complete.

Table T-5 contains the bicycle and pedestrian improvements included under the Transportation Development Act (TDA) Article 3 program. The TDA funds are expected to be available but are not guaranteed.

## 2. Long Range Capital Improvement Program

To achieve the Level of Service on Highway 101 and on arterial streets recommended under the policies of the Countywide Plan, Marin County's transportation system must have all of the capital improvements recommended in the Plan or a system which has equivalent capacity. As was listed above, these are: High Occupancy Vehicle lanes on Highway 101 from Mill Valley to Sonoma County, rail transit service between Larkspur and Santa Rosa, increased ferry service to San Francisco, increased bus service, and McInnis Drive between Civic Center Drive and Rowland Boulevard. The Long Range Capital Improvement Program shown in Table T-7 has a total unfunded cost of \$557.9 million in 1992 dollars.

### a. Highway Improvements

The cities and County of Marin have created a list of recommended highway and local road projects for the Congestion Management Program's Capital Improvement Program, administered by the Countywide Planning Agency. These projects would complete the highway portion of the recommended transportation system. Their estimated cost is \$176 million (in 1992 dollars), and they are currently unfunded.



**Table T-3. Funded Improvements in 1990 State Transportation Improvement Program**  
(Cost estimates in millions of 1992 dollars)

| Route           | Location                                         | Description                          | Cost<br>(millions) |
|-----------------|--------------------------------------------------|--------------------------------------|--------------------|
| Highway 101     | Rowland Boulevard Interchange                    | Park and Ride Lot (330 vehicles)     | 1.65               |
| Highway 101     | Merrydale Road (south of Manuel Freitas Parkway) | New Overcrossing                     | 4.19               |
| Highway 101     | Manuel Freitas Parkway Interchange               | Northbound on-ramp                   | .99                |
| Highway 101     | Lucas Valley Road Interchange                    | New Southbound on/off ramps          | 3.86               |
| Highway 101     | From San Pedro Road to Mission Avenue            | HOV lanes, Southbound Auxiliary lane | 27.78              |
| Highway 101     | Waldo Interchange                                | Modify ramps                         | 4.19               |
| Highway 101     | Rowland Boulevard Interchange                    | Modify Interchange                   | 4.30               |
| Highway 101     | From Sir Francis Drake Boulevard to I-580        | Northbound Auxiliary lane            | 5.84               |
| I-580           | Bellam Boulevard                                 | Relocate Westbound ramps             | 8.71               |
| Highway 101     | Tamalpais Drive                                  | Park and Ride lot (225 vehicles)     | .88                |
| Andersen Drive  | From West Francisco Boulevard to Second Street   | Extend Andersen Drive                | 8.49               |
| Highway 101     | From Miller Creek Road to N. San Pedro Road      | Southbound auxiliary lane            | 5.51               |
| <i>Subtotal</i> |                                                  |                                      | <i>\$76.39</i>     |

**Federally and Locally Funded Improvements (Cost estimates in millions of 1992 dollars)**

| Route                                | Location                            | Description           | Cost<br>(millions) |
|--------------------------------------|-------------------------------------|-----------------------|--------------------|
| Sir Francis Drake Boulevard          | At Fairfax city limits              | Shoulder Improvements | .78                |
| South Novato Boulevard               | From Warner Creek to Yukon Way      | Widen to four lanes   | 1.15               |
| South Novato Boulevard               | From Yukon Way to Rowland Boulevard | Widen to four lanes   | 1.41               |
| East Sir Francis Drake Boulevard     | From Highway 101 to Ferry Terminal  | Widen to six lanes    | 1.43               |
| East Sir Francis Drake Boulevard     | At Andersen Drive                   | Signal Improvements   | .34                |
| Various Streets                      | Downtown San Rafael                 | Signal Improvements   | .69                |
| Atherton Avenue                      | From Olive Avenue to Highway 37     | Left Turn Lanes       | 1.26               |
| <i>Subtotal</i>                      |                                     |                       | <i>7.06</i>        |
| <b>Total for funded improvements</b> |                                     |                       | <b>\$83.45</b>     |



**Table T-4. Transit System Improvements**  
**Five Year Short Range Transit Plan, Golden Gate Bridge District**  
 (Cost estimates in millions of 1992 dollars)

| Route       | Location                             | Description                       | Cost<br>(millions) |
|-------------|--------------------------------------|-----------------------------------|--------------------|
| Bus         |                                      | 68 replacement buses              | \$21.96            |
| Bus         | San Rafael Maintenance Facility      | Replace fuel tanks, pipeline      | 1.98               |
| Bus         | Sir Francis Drake Boulevard          | Bus stop improvements             | .42                |
| Bus         | All facilities                       | Fuel Tank site remediation        | .29                |
| Bus         | San Rafael facility                  | Parking lot resurfacing           | .17                |
| Bus & Ferry |                                      | Replace non-revenue vehicles      | .22                |
| Ferry       |                                      | Replace one ferry vessel          | 4.69               |
| Ferry       |                                      | Ferry wheelchair elevators        | .12                |
| Ferry       | Larkspur terminal                    | Construct fourth ferry berth      | .77                |
| Ferry       | Sausalito landing                    | Replace float, extend ramp        | 1.09               |
| Ferry       | Larkspur terminal                    | Automatic ticket vending machines | .33                |
| Ferry       | San Francisco and Larkspur terminals | Passenger shelters                | .53                |
| Ferry       | Larkspur                             | Channel dredging                  | 4.85               |
| Total       |                                      |                                   | 37.42              |

**Table T-5. Bicycle and Pedestrian Facility Improvements**  
(Cost estimates in millions of 1992 dollars)

| Jurisdiction | Location                                             | Type     | Cost<br>(millions) |
|--------------|------------------------------------------------------|----------|--------------------|
| Tiburon      | "Blackie's Pasture"                                  | Class I  | \$16.5             |
| Marin County | Atherton Avenue                                      | Class I  | 47.4               |
| Marin County | Sir Francis Drake Boulevard, Lagunitas               | Class II | 88.2               |
| Marin County | Sir Francis Drake Boulevard, Inverness               | Class II | 33.1               |
| Marin County | Sir Francis Drake Boulevard, Lagunitas<br>(Phase II) | Class II | 248.1              |
| Corte Madera | High Canal Path                                      | Class II | 60.6               |
| Total        |                                                      |          | \$493.9            |

Table T-6 lists unfunded projects proposed in the Countywide Planning Agency's Capital Improvement Program. These projects can be considered "long range" capital improvements.

b. Transit Improvements

To complete the list of improvements recommended in the Countywide Plan transportation system, a rail transit system and additional ferries are needed. The Highway 101 Corridor Study estimated the construction cost for a light rail train at \$273 million in 1992 dollars. A ten year projection for the operating cost of the light rail train is \$45 million in 1992 dollars where the train is assumed to begin operating ten years after project conception. The additional ferries are estimated to cost \$45 million in 1992 dollars with 20-year projected operating costs at an estimated \$19 million in 1992 dollars. The total 20-year costs of the recommended transit system is \$382 million in 1992 dollars. This long term capital program is completely unfunded at this time.

3. Sources of Transportation Funds

The unfunded portion of the recommended transportation program, over half a billion dollars, will be met in part by existing local, State, and Federal funding programs. The 101 Corridor Study conservatively estimated the following funding levels would be available to Marin County over a 20 year period from the sources as indicated.

|                                                 |                 |
|-------------------------------------------------|-----------------|
| State Transportation Improvement Program (STIP) | \$ 93.0 million |
| Urban Mass Transportation Administration (UMTA) | 81.0 million    |
| Golden Gate Bridge District Tolls               | 54.0 million    |
| Proposition 116 Rail Bonds                      | 11.0 million    |
| Total                                           | \$239.0 million |

A potential shortfall of \$319 million exists between the cost and the available funding for the recommended transportation plan. Several options are available to make up for the funding shortfall:

a. Developing new sources of local funding

*Sales Tax.* A one percent sales tax in Marin County dedicated to transportation would generate \$500 million over the 20 year planning period, more than enough to fully meet the funding requirements.

**Table T-6. Unfunded, Recommended Highway and Local Road Improvements**  
(Cost estimates in millions of 1990 dollars)

| Route                       | Location                                           | Description                         | Cost<br>(millions) |
|-----------------------------|----------------------------------------------------|-------------------------------------|--------------------|
| Highway 101                 | From Mission Avenue to Interstate 580              | North/South HOV lanes               | \$31.20            |
| Highway 101                 | From Interstate 580 to Sir Francis Drake Boulevard | North/South HOV lanes, auxiliary    | 52.04              |
| Highway 101                 | From Atherton Avenue to Sonoma County line         | North/South HOV lanes               | 25.80              |
| Highway 101                 | From Highway 37 to Atherton Avenue                 | North/South HOV lanes               | 19.62              |
| State Route 1               | From Flamingo Road to Highway 101                  | Widen to 3 and 5 lanes              | 4.08               |
| Sir Francis Drake Boulevard | From Red Hill Avenue to Olema Road                 | Signal Modifications                | 1.87               |
| Sir Francis Drake Boulevard | From Red Hill Avenue to Olema Road                 | Widen lanes, add bicycle lanes      | 2.43               |
| Highway 101                 | At Nellen Road                                     | New interchange                     | 9.81               |
| Tiburon Boulevard           | From Highway 101 to Redwood Frontage Road          | Widen to six lanes                  | 4.52               |
| South Novato Boulevard      | From Redwood Boulevard to Bel Marin Keys Boulevard | New Highway 101 overcrossing, ramps | 10.91              |
| Bel Marin Keys Boulevard    | At Highway 101                                     | Northbound right turn lanes (2)     | n/a                |
| Interstate 580              | At Bellam Boulevard Interchange                    | Move interchange 1500 feet east     | 13.67              |
| Total                       |                                                    |                                     | \$175.95           |

Note: The cost estimate of the Bel Marin Keys Boulevard project has not been determined.



*Traffic Impact Mitigation Fees.* These fees are a one-time, lump sum payment from a developer to a local public agency. The fees assist in paying for the capital improvements needed to mitigate the traffic impacts of the proposed project. Traffic impact mitigation fees are currently collected by the Cities of San Rafael, Corte Madera, Larkspur, Tiburon, and the County of Marin.

*Regional impact fees.* The County and cities should consider regional impact fees to help fund facilities of countywide significance such as Highway 101. Because the traffic generated by new development impacts countywide facilities, sufficient justification may exist for regional fee requirements. Local governments in Marin would need to cooperate in determining the total cost of proposed regional improvements, the percentage share borne by developers, and the amount of the fee charged to specific projects. A regional fee could be a fixed dollar amount assessed per housing unit and per unit of commercial development or a variable fee based on project location and anticipated impact on regional facilities. Any method of calculating traffic impact mitigation fees would require extensive legal and factual analysis based on specific requirements.

For example, assuming a traffic mitigation fee rate of \$4,000 per peak hour trip generated, the total funds which could be generated over 20 years by traffic mitigation fees would be about \$150 million. The estimate of funds generated is based on the new development recommended in this plan. Obviously, a lower amount of development would mean that a lower level of funds would be available from the traffic fee program.

*Assessment Districts.* Assessment districts permit a surcharge or surtax on the properties which directly benefit from a public improvement. The charge or tax may be either a one-time or an annual fee.

*Tax Increment Financing.* Tax increment financing allows public projects to be funded by an increase property taxes, resulting from increased private investment in the vicinity of the public improvement. Like assessment districts, tax increment districts are difficult to set up and the proceeds must be spent within the benefit district.

*Local Taxes/Fees on Vehicle Registration, Licenses, Vehicle Parts, or Fuels.* These taxes/fees may fund local transportation projects, although the administrative cost for their collection is high. The State would have to authorize local governments to collect taxes or fees on vehicle registration, licenses or vehicle parts. With the exception of the fuel tax, the potential revenue from these taxes and fees is small.

*General Funds.* All local governments use some general funds monies to pay for transportation improvements, although Proposition 13 restrictions on raising property taxes limits potential for funding major projects with general fund revenues. The County uses local property taxes from its general fund for road maintenance, minor road improvements, and local transit service (under contract with the Golden Gate Bridge District).

- b. Reducing the scale of transportation improvements to a level which could be funded from existing resources

Transportation improvements could be reduced to a level which could be funded from existing resources. This policy would result in significantly increased levels of congestion from the Level of Service D or better which would result if the recommended transportation plan is implemented. Local policy makers have often found it less burdensome to accept higher levels of congestion (service levels E or F) than to impose the added local taxing burden which would be required to close the transportation program funding gap from local sources.

- c. Reducing the scale of the transportation program and the amount of new development permitted under local plans.

The amount of additional congestion which would be caused by a policy of not providing the full recommended transportation program could be mitigated, but not eliminated, by reducing the amount of new development which is recommended by the Countywide Plan and city general plans. Because some portions of Highway 101 currently operate at an unsatisfactory Level of Service (Level F) , a reduced transportation improvement program may not be sufficient to relieve existing congestion and carry the trips generated by new development. This approach would need to combine a somewhat reduced scale transportation program with a greatly reduced development program in order to approach the future year goal of Level of Service D or better which is recommended in this plan.

- d. Require transportation improvements to be in place before developments receive final approvals, subject to legal requirements. This approach would not reject new development but would delay development approval until the funding programs can catch up with the costs of transportation improvements.

## 5. Prioritization of Transportation Projects

The transportation program funding gap requires that the development of the transportation system be accomplished in carefully considered stages. For example, careful study in the Highway 101 Corridor Study revealed that the greatest relief from severe congestion on Highway 101 was provided by completing the HOV lane system in Marin. Until it is clear that the entire recommended transportation program can be funded, the HOV lane project should receive the highest priority for funding.

The total cost for all the unfunded HOV lane projects in Marin County is \$129 million. Since the cost exceeds the projected available STIP funds of \$93 million, priorities need to be established for the HOV lane projects. The following list prioritizes the unfunded HOV lane projects based on the impact each would have on reducing traffic congestion:

| Priority Rank | HOV Lane Project Description          | Cost            |
|---------------|---------------------------------------|-----------------|
| First         | Mission Avenue to I 580               | \$31.20 million |
| Second        | I 580 to Sir Francis Drake Boulevard  | 52.04 million   |
| Third         | SR 37 to Atherton Avenue              | 19.62 million   |
| Fourth        | Atherton Avenue to Sonoma County Line | 25.80 million   |

The portion of the recommended program of transit projects which could be accomplished for the least cost and greatest improvement in service is increased bus and ferry service. Increasing these services should receive first priority for transit funds. The combination of a completed HOV lane system with increased bus service would provide an excellent base for increasing the use of transit by commuters to Marin and San Francisco jobs. The added ferry service would further increase the attractiveness of public transit for the commute to San Francisco.

## 6. Recommended Capital Improvement Program and Proposed Funding

The recommended combination of highway and local road improvements and transit services could be funded from a variety of sources. Table T-7 lists the major categories of projects and an example of how each could be funded. At present, the legal authority for levying regional traffic mitigation fees has not been established. The amount of revenue generated from potential regional fees has not been calculated.

**Table T-7. Recommended Projects, Estimated Costs & Proposed Funding**  
**(Estimated in millions of 1992 dollars)**  
**For Capital Improvement Program**

| Project Description                        | Cost<br>(millions) | Funding<br>(millions) | Funding Source                                                                          |
|--------------------------------------------|--------------------|-----------------------|-----------------------------------------------------------------------------------------|
| High Occupancy Vehicle and auxiliary lanes | \$128.6            | \$80.0<br>48.6<br>*   | Sales tax<br>State Transportation Improvement Program<br>Traffic Impact Mitigation Fees |
| Freeway interchange improvements           | 34.4               | 21.0<br>13.4          | State Transportation Improvement Program<br>Traffic Impact Mitigation Fees              |
| Local road improvements                    | 12.9               | 12.9<br>*             | State Transportation Improvement Program<br>Traffic Impact Mitigation Fees              |
| Light rail train capital costs             | 273.0              | 221.0<br>41.0<br>11.0 | Sales tax<br>Urban Mass Transportation Administration<br>Rail bond from Proposition 116 |
| Light rail train operating costs           | 45.0               | 23.0<br>22.0          | Sales tax<br>Golden Gate Bridge District                                                |
| Ferry capital costs                        | 45.0               | 36.0<br>9.0           | Urban Mass Transportation Administration<br>Golden Gate Bridge District                 |
| Ferry operating costs                      | 19.0               | 19.0                  | Golden Gate Bridge District                                                             |
| Total                                      | \$557.9            | \$557.9               |                                                                                         |



## 7. Linkage of Future Development With Transportation Improvements

This element focuses primarily on a Countywide transportation system composed of Highway 101, major arterials and local roads. Impacts on this system are caused by the traffic generated by development in Marin cities and towns as well as the unincorporated county and neighboring counties. Future development approved by many jurisdictions will have impacts on the transportation system in Marin.

If funding is available to construct improvements identified in the capital improvement program to keep pace with development in the cities, towns and unincorporated area, then level of service D can be achieved on Highway 101, most interchanges and arterials. If development occurs before transportation improvements are in place, then level of service standards would be exceeded.

This element establishes an average level of service D on Highway 101 as a goal but does not establish a mechanism for requiring that it be achieved prior to development. The County acting alone would not be successful in achieving the level of service by imposing mitigation fees or stating that new development in the unincorporated area shall not be approved until transportation improvements are in place. Since development in the cities and towns would contribute the majority of impacts on the transportation system, the most effective way to link the improvements to the transportation system with future development would be a countywide program in which all jurisdictions participate.

The Transportation Element includes a program for local traffic mitigation fees to provide transportation system improvements on arterial streets and freeway interchanges. These mitigation fee programs would be developed cooperatively by the County and the cities for areas where more than one jurisdiction contributes to traffic on a roadway. The agreements between the County and cities may stipulate that developments should not receive occupancy permits until transportation improvements are in place, if conditions warrant such a stipulation.

For Highway 101, regional mitigation fees may provide a portion of the funding for needed improvements. Unless all jurisdictions cooperate, there would be no effective way to coordinate the pace of development with provision of transportation improvements. A possible mechanism for controlling the pace of development is for each jurisdiction to place a limit on the amount of development it approves each year. A method for calculating such a limit would be to assume that the capital improvements recommended for the Highway 101 corridor would be completed in twenty years, to calculate the number of afternoon peak hour trips which would be generated by all the development allowed in each jurisdiction's General Plan, and to allow only the amount of development each year which would use 1/20th of the total number of trips.

The Countywide Planning Agency, which includes representatives from the cities and the County, should investigate limitations on the pace of development and other mechanisms to coordinate the provision of transportation system improvements with the rate of development.

#### IV. OBJECTIVES, POLICIES AND IMPLEMENTATION PROGRAMS

**Objective T-1. Efficient Movement of People and Goods.** To have a countywide transportation system that provides for the efficient movement of people and goods and also offers an adequate range of alternative modes of transportation service for the residents of Marin County.

##### **Policy T-1.1**

**Level of Service Standards.** The County shall adopt Level of Service D as a performance standard for all unincorporated streets, except as noted below, and for State highways including: U.S. Highway 101, I-580, SR 1, SR 37, and SR 131. The full implementation of the transportation improvements recommended in this plan will assure that streets and highways will operate at service level D at the time of plan buildout. The establishment of the service level standard is to ensure performance of the transportation system and also to be used to guide the amount, location and timing of new development.

*Measurement and Application of the Level of Service Standard.* The Level of Service for streets in the unincorporated areas of the County shall be measured at major intersections for peak hour traffic using the methods of TRB Circular 212, the Highway Capacity Manual (HCM), or comparable procedures which may be adopted by the County. Sir Francis Drake Boulevard from U.S. Highway 101 to Bon Air Road, which currently operates at Level of Service F during afternoon peak hours, shall be exempted from the service level D standard due to the impact on the built and natural environments which would result if the street were widened to provide additional capacity.

The Level of Service on U.S. Highway 101 shall be measured at peak hour for six critical points between the Golden Gate Bridge and the Sonoma County line. These points, in addition to the Bridge and the County line, are Alto Hill between Mill Valley and Corte Madera, Cal Park Hill between Larkspur and San Rafael, Puerto Suello Hill between downtown San Rafael and the Civic Center, and Pacheco Hill between Marinwood and Ignacio.

The method to establish service level on Highway 101 shall be the relationship between traffic volume and roadway capacity (V/C Ratio) as described in the HCM for freeways. The long term goal of the County is that all segments of Highway 101 meet the service level D standard. However, the county may exempt no more than one of the six critical links from meeting the standard so long as the Highway 101 "system" maintains a service level D as an average condition over the six points measured.

*Relationship Between Service Level Standards and Approval of New Development.* The County shall cooperate with cities to maintain level of service standards for local streets. When cooperative agreements have been established, the occupancy permits for new development projects should not be permitted in unincorporated areas of the county until the funding for transportation improvements needed to maintain service level standards on arterials streets has been guaranteed.

The goal of the County is to ensure that service level standards on all freeways is also achieved. However, several sections of U.S. Highway 101 currently operate at service level F and new development by itself cannot provide enough of the funding needed to correct the existing service level deficiencies. New development will contribute to the funding of freeway improvements through the regional mitigation fee program as described in Program T-1.3b. However, other County, State, and Federal funds will be required to complete the improvements necessary to maintain Level of Service standards. The approval and occupancy of new development shall be managed to minimize impact on the freeway system. Countywide programs should be developed which help to pace development with funded improvements.

Program T-1.1a

Adopt a Capital Improvement Program. The County shall adopt a Capital Improvement Program (CIP) which contains projects designed to achieve the Level of Service standards. The County shall coordinate with the cities to create a CIP for submittal to the Countywide Planning Agency. Projects must conform to standards in the Congestion Management Program and conform with rules established by the Bay Area Air Quality Management District regional air quality standards.



The County shall prioritize the projects in the CIP based on the criteria provided in the Plan: completion of the HOV system on Highway 101 shall be the highest priority highway project and expansion of the bus and ferry system shall be the highest priority transit projects.

- Program T-1.1b      Traffic Impact Assessment and Mitigation. The County shall determine the traffic impacts of development on the freeway system and on all roads and intersections within the unincorporated area. The County shall require mitigation of all traffic impacts which cause Level of Service to drop below the adopted standards. Mitigations include, but are not limited to: transportation system improvements in the vicinity of the project; fees to help fund improvements in the vicinity of the project; Transportation System Management activities which reduce potential impacts of the project; and/or redesign of the project.
- Program T-1.1c      Linkage of Future Development with Transportation Improvements. The Countywide Planning Agency should develop a program to coordinate the pace of development in all jurisdictions with the provision of transportation system capacity.
- Program T-1.1d      Traffic Impact Monitoring of Congestion Management Program Transportation System. Within the unincorporated area, the County shall monitor the traffic impacts of development on the portion of the Congestion Management Program designated transportation system.
- Program T-1.1e      Transportation System Management Program and Trip Reduction Ordinance. The County shall adopt a Transportation System Management Program and Trip Reduction Ordinance as required by the Congestion Management Program. The purpose of the TSM Program and ordinance is to improve the operating efficiency of the transportation system and reduce vehicle travel demands upon the transportation system.

Methods to improve the operating efficiency of the system include traffic signal timing and ramp metering on Highway 101. Methods of reducing vehicle travel demands include programs to encourage the use of transit, vanpools, carpools and bicycles; alternate work schedules for employees; and limitations on the availability of parking.

Program T-1.1f      Transportation System Modeling. The County shall maintain transportation system modeling capability for the purpose of providing estimates and projections of trip generation, transportation demand, and Level of Service on the road network and transit routes within the modeling system.

Program T-1.1g      Local Transit Services Plan. The County shall adopt a Local Transit Services Plan to guide the provision of local transit service. The plan shall contain service standards including, but not limited to, hours of operation, routes, and frequency of transit vehicle arrival.

Program T-1.1h      Cooperate With Countywide Planning Agency. The County shall cooperate to the fullest extent possible with the Countywide Planning Agency as it carries out its functions concerning countywide land use planning, the linkage of future development with provision of transportation improvements, and the Congestion Management Program.

**Policy T-1.2**      **Pursue All Funding Sources.** The County, in cooperation with the cities, shall pursue all possible funding sources in order to provide the improvements necessary to maintain Level of Service standards.

Program T-1.2a      Use Local, State, and Federal Funding Sources. The County shall aggressively apply for funding from State and Federal sources as it becomes available. Where appropriate, the County shall use local sources such as general funds, fees, privately funded improvements, user charges, or local taxes.

Program T-1.2b      Monitor the Success of Funding Development Programs. The achievement of the service level goals of this plan is dependent on the successful development of new funding sources for the construction of transportation improvements.

The Department of Public Works shall annually report the status of the funding development program including: the results of local initiatives, the funds which have been generated by local and regional mitigation fee programs, and the funds available from State and Federal subvention programs. If at the end of a five year monitoring period the gap between funds needed and funds available has not been significantly closed, the policies of this plan on service level standards and on the timing and amount of new development shall be reviewed in terms of the lack of available transportation system funding.

### **Policy T-1.3**

**Fair Share For Transportation System Improvements.** New development should pay a fair share of the costs for providing local and regional transportation system improvements necessary to serve new development.

#### **Program T-1.3a**

Establish Local Traffic Mitigation Fees. The County shall establish traffic mitigation fees to be assessed on new development. The fees shall cover a reasonable share of the costs of providing local transportation improvements needed for serving new development in the unincorporated area. Local improvements are defined as those improvements to streets within the vicinity of new development. If the vicinity of the development includes areas within incorporated cities, the County shall consult with cities to establish a joint mitigation fee program. The fee may vary by location according to the cost of improvements needed in the vicinity and the nexus with the proposed development.

#### **Program T-1.3b**

Establish Regional Traffic Mitigation Fees. The County shall consult with cities concerning regional traffic mitigation fees, in order to assess new development with a reasonable share of the costs of providing transportation improvements of countywide importance needed to serve that development. Regional improvements include improvements for Highway 101 and inter-jurisdictional arterials, increased transit service and Transportation System Management programs.

**Policy T-1.4**

**Transportation Policies in Community Plans.** The County shall incorporate Level of Service standards, recommend transportation system improvements, and adopt additional policies as needed in community plans. These plans will address transportation issues specific to unincorporated communities with Community Plans.

**Objective T-2. Meet the Needs of the Elderly, Persons with Disabilities, and the Transit-Dependent.** To ensure that the transportation needs of the elderly, persons with disabilities, and the transit-dependent are met through a combination of fixed route transit and specialized paratransit service.

**Policy T-2.1**

**Paratransit Service.** The County shall fund paratransit services and integrate these services with fixed route transit service.

**Program T-2.1a**

**Contract With Private Paratransit Service Operators.** The Marin County Transit District shall contract with private paratransit service operators to provide general paratransit services according to the draft "Marin Paratransit Development Plan" (August 1990).

**Policy T-2.2**

**Coordinate Paratransit Services.** The County shall coordinate various paratransit services to meet the needs of transit-dependent residents and ensure that service providers operate in the most efficient manner possible.

**Program T-2.2a**

**Transit District Coordinates Paratransit Services.** The Marin County Transit District shall: 1) provide information and referral service to paratransit customers and social service agencies; 2) coordinate the operations of service providers to maximize service levels and meet the needs of potential customers; and, 3) coordinate paratransit service with accessible fixed route transit service.

**Objective T-3. Civilian Airport Facilities.** To provide civilian airport facilities for general aviation and emergency purposes.

**Policy T-3.1**

**General Aviation at Gness Field.** The County Airport at Gness Field shall be the only civilian airport facility and be used only for general aviation.



Improvements at Gness Field shall be made in accordance with the Airport Master Plan for Marin County Airport (adopted, 1989). The heliport and seaplane bases in Richardson Bay shall remain to serve water-oriented visitor and commercial uses.

**Objective T-4. Affordable Public Transportation.** To provide affordable public transportation service to all areas of the county.

**Policy T-4.1**                      **Provide For Fixed Route Public Transit Service.** The County shall provide fixed route public transit service to all areas of the county by contracting with transit service providers.

Program T-4.1a                      Contract With Transit Service Providers for Fixed Route Transit Service. The County shall contract with transit service providers to obtain fixed route transit service in accordance with the Local Transit Services Plan.

**Objective T-5. Bicycle Access.** To provide bicycle access among residential neighborhoods, employment centers, shopping areas, and recreational facilities.

**Policy T-5.1**                      **Improve Bicycle Access.** The County shall ensure that areas without bicycle access to other parts of the county receive transportation system improvements that allow bicycle access.

Program T-5.1a                      Create a Bicycle Policy Map. The County shall create a Bicycle Policy Map, coordinated with city plans, which designates potential access ways between areas of the county that currently do not have adequate access.

Program T-5.1b                      Use Development Review Process. The County shall use the development review process to implement bicycle access policies, subject to nexus requirements.

Program T-5.1c                      Developers Provide Bicycle Access and Storage. The County shall consider bicycle transportation needs in the review of development projects, and where appropriate, shall require provision of bicycle access between a proposed development and other parts of the County through dedication of easements and construction of bicycle access ways which connect with other bicycle access ways.

The County may also require developers to provide secure and weatherproof bicycle storage facilities in their projects.

Program T-5.1d

Bicycles in the Transportation System Management Program.

The County shall integrate bicycle use as an alternate transportation mode in the Transportation System Management Program. Transportation coordinators shall promote the use of bicycles among Marin residents and employees and shall work with schools, recreation facilities, community groups, and employers to recommend bicycle use.

Policy T-5.2

**Bikeways Committee.** The Bikeways Committee of the Parks and Cultural Commission shall advise the County in matters relating to bikeways and bicycle transportation and promote bicycle use throughout the county.



# HOUSING ELEMENT

Adopted July 9, 1991





**HOUSING ELEMENT**  
**TABLE OF CONTENTS**

**THE GENERAL POPULATION**

|             |                                                  |   |
|-------------|--------------------------------------------------|---|
| <b>I.</b>   | <b>Historical Trends and Existing Conditions</b> |   |
|             | Population Growth                                | 1 |
|             | Age of the Population                            | 2 |
|             | Size of Households                               | 3 |
|             | Growth in the Housing Stock                      | 3 |
|             | Housing Prices                                   | 4 |
|             | Jobs/Housing Imbalance                           | 5 |
| <b>II.</b>  | <b>Projections</b>                               |   |
|             | Population Growth                                | 5 |
|             | Age of the Population                            | 5 |
|             | Size of Households                               | 6 |
|             | Number of Housing Units                          | 6 |
|             | Housing Prices                                   | 6 |
|             | Jobs/Housing Imbalance                           | 7 |
| <b>III.</b> | <b>Planning Implications</b>                     | 7 |

**SPECIAL NEEDS POPULATIONS AND HOUSING**

|             |                                |    |
|-------------|--------------------------------|----|
| <b>I.</b>   | <b>Women-Headed Households</b> | 9  |
| <b>II.</b>  | <b>Large Families</b>          | 11 |
| <b>III.</b> | <b>Elderly Households</b>      | 11 |
| <b>IV.</b>  | <b>Handicapped Persons</b>     | 12 |
| <b>V.</b>   | <b>Farm Workers</b>            | 14 |
| <b>VI.</b>  | <b>The Homeless</b>            | 14 |

**OTHER HOUSING ISSUES**

|            |                                                   |    |
|------------|---------------------------------------------------|----|
| <b>I.</b>  | <b>ABAG Regional Housing Needs Determinations</b> | 17 |
| <b>II.</b> | <b>Affordability</b>                              |    |
|            | Overpayment by Renters                            | 20 |
|            | Overpayment by Owners                             | 21 |

|              |                                             |    |
|--------------|---------------------------------------------|----|
| <b>III.</b>  | <b>Loss of Affordable Housing</b>           | 22 |
|              | Demolitions and Conversions                 | 22 |
|              | Termination of Federal Subsidies            | 22 |
|              | Filtering Up                                | 22 |
| <b>IV.</b>   | <b>Overcrowding</b>                         | 23 |
| <b>V.</b>    | <b>Vacant Housing Units</b>                 | 23 |
| <b>VI.</b>   | <b>Tenure of Housing</b>                    | 23 |
| <b>VII.</b>  | <b>Substandard Housing</b>                  | 24 |
| <b>VIII.</b> | <b>Housing Needing Replacement</b>          | 24 |
| <b>IX.</b>   | <b>Energy Conservation</b>                  | 24 |
| <b>X.</b>    | <b>Land Inventory</b>                       | 25 |
|              | Single Family Parcels                       | 25 |
|              | Multifamily Parcels                         | 25 |
| <b>XII.</b>  | <b>Inventory of Emergency Shelter Sites</b> | 29 |
| <b>XIII.</b> | <b>Consistency with Other Elements</b>      | 30 |
| <b>XIV.</b>  | <b>Constraints</b>                          | 30 |
|              | Governmental Constraints                    | 30 |
|              | Market Constraints                          | 42 |

## **OBJECTIVES, POLICIES, & PROGRAMS**

|           |                                          |    |
|-----------|------------------------------------------|----|
| <b>I.</b> | <b>Objectives, Policies and Programs</b> | 45 |
|-----------|------------------------------------------|----|

## APPENDICES

|            |                                                     |    |
|------------|-----------------------------------------------------|----|
| Appendix A | Evaluation of the 1984 Housing Element              | A1 |
| Appendix B | Citizen Participation                               | B1 |
| Appendix C | Cost of Construction                                | C1 |
| Appendix D | Development in the Coastal Zone                     | D1 |
| Appendix E | Permit Fees                                         | E1 |
| Appendix F | Summary of Setback Requirements of Zoning Districts | F1 |
| Appendix G | Environmental Review Fact Sheet                     | G1 |

## TABLES

|     |                                                                             |    |
|-----|-----------------------------------------------------------------------------|----|
| 1.  | Population Growth, Bay Area and Marin County 1950-1989                      | 1  |
| 2.  | Housing Growth, Bay Area and Marin County 1950-1989                         | 4  |
| 3.  | Income Classifications                                                      | 9  |
| 4.  | Revised Regional Housing Needs                                              | 17 |
| 5.  | Projected Number of Low and Very Low<br>Income Units Constructed, 1988-1995 | 19 |
| 6.  | Estimated Percentage of Income Used for Housing, 1989                       | 21 |
| 7.  | Comparison between Development Potential<br>and Housing Need, 1991          | 26 |
| 8.  | Potential Development on Multifamily Parcels, 1991                          | 29 |
| 9.  | Comparison of Zoning Requirements, 1987                                     | 34 |
| 10. | Comparison of Permit Review Fees, 1987                                      | 38 |
| A1. | Evaluation of 1984 Quantified Objectives                                    | A1 |

## FIGURES

|    |                                                                                 |    |
|----|---------------------------------------------------------------------------------|----|
| 1. | Map of Unincorporated Marin County                                              | 2  |
| 2. | Map of Unincorporated Marin County<br>Outside the Sphere of Influence of Cities | 18 |





## INTRODUCTION

The State Legislature has found that the availability of housing is of statewide importance. To ensure that counties and cities recognize their responsibilities to the attainment of the statewide housing goal, the State, via Assembly Bill 2853 (1980), has required local governments to prepare and implement housing elements as part of their General Plans, and to revise them every five years. According to AB 2853, the Housing Element shall consist of "an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing."

The County of Marin has prepared its revised Housing Element to meet the requirements of State law and to incorporate new information from the Association of Bay Area Government's Projections '89 and Regional Housing Needs Determinations, and from other sources. The revised Element identifies housing needs within unincorporated areas in Marin, and proposes specific programs (including dates of implementation) necessary to address these needs. The beginning section of the Element details population and housing characteristics of the general population, including an analysis of planning implications. The second section focuses on the characteristics and needs of special populations (the elderly, women-headed households, large families, farm workers, handicapped persons, and homeless persons). In the third section, other housing issues are discussed such as projected housing needs, constraints on the development of housing, and the number of units that can potentially be developed. The last component of the Element is a set of objectives, policies and programs that will be used to meet the housing needs described in the previous sections.

## GENERAL POPULATION CHARACTERISTICS

### Historical Trends and Existing Conditions

#### Population Growth

Until recently, Marin, as well as the entire Bay Area, has grown fairly rapidly. The Bay Area population grew by an average 2.3% each year between 1960 and 1970; the same rate of growth that occurred in the unincorporated portion of Marin<sup>1</sup> (Figure 1 shows the unincorporated areas in Marin). Since then the rate of population growth has slowed for the Bay Area and Marin. Each year between 1980 and 1989, the average annual increase in the population of the Bay Area was only 1.3%<sup>2</sup>. In unincorporated Marin, it was just 0.15%, about half of the growth rate of the 1960s. As a result, the unincorporated County's share of the total population of the Bay Area dropped between 1960 and 1989 from 1.5% to 1.1%. In 1989, the population of the Bay Area was estimated to be about 5.8 million persons, compared to 64,027 persons in unincorporated Marin. Table 1 demonstrates these trends.

Table 1

#### POPULATION GROWTH Unincorporated Marin County and Bay Area, 1960-1989

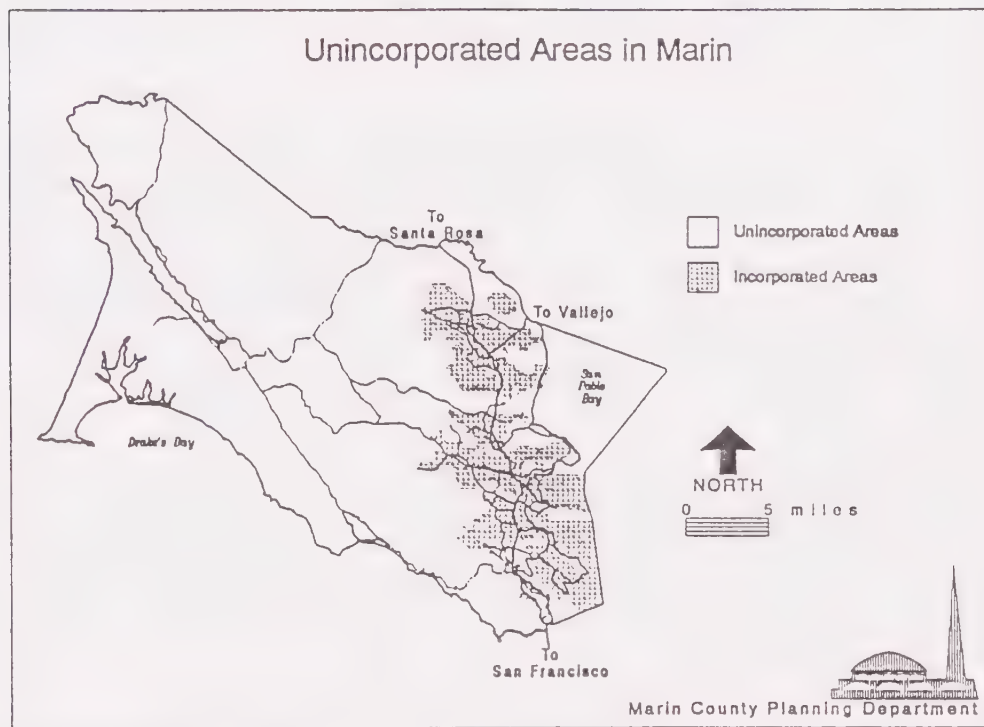
| <u>Year</u> | <u>Unincorporated<br/>Marin<br/>Population</u> | <u>Percent<br/>Change</u> | <u>Bay Area<br/>Population</u> | <u>Percent<br/>Change</u> | <u>Marin's<br/>Share</u> |
|-------------|------------------------------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|
| 1960        | 53,669                                         | N/A                       | 3,638,939                      | N/A                       | 1.5                      |
| 1970        | 65,762                                         | 22.5                      | 4,473,320                      | 22.9                      | 1.5                      |
| 1980        | 63,178                                         | (3.9)                     | 5,179,784                      | 15.7                      | 1.2                      |
| 1989        | 64,027                                         | 1.3                       | 5,793,551                      | 13.2                      | 1.1                      |

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980;  
California Department of Finance, 1989.

<sup>1</sup> 1960, 1970 U.S. Census of Population

<sup>2</sup> 1980, 1989 California Department of Finance, Population and Housing Estimates for Bay Area Counties

Figure 1



### Age of the Population

The birth and maturation of the "baby boom" generation is evident in Marin's population statistics. Many of the children that were born during the "baby boom" era of the late 1940s and 1950s are now part of the resident adult population. As a result, the age of Marin's residents increased over the years. For example, the median age of Marin's population was 30 years in 1970. By 1980, the median age increased to over 33 years<sup>3</sup>.

<sup>3</sup> 1970, 1980 U.S. Census of Population



## GENERAL POPULATION CHARACTERISTICS

### Historical Trends and Existing Conditions

#### Population Growth

Until recently, Marin, as well as the entire Bay Area, has grown fairly rapidly. The Bay Area population grew by an average 2.3% each year between 1960 and 1970; the same rate of growth that occurred in the unincorporated portion of Marin<sup>1</sup> (Figure 1 shows the unincorporated areas in Marin). Since then the rate of population growth has slowed for the Bay Area and Marin. Each year between 1980 and 1989, the average annual increase in the population of the Bay Area was only 1.3%<sup>2</sup>. In unincorporated Marin, it was just 0.15%, about half of the growth rate of the 1960s. As a result, the unincorporated County's share of the total population of the Bay Area dropped between 1960 and 1989 from 1.5% to 1.1%. In 1989, the population of the Bay Area was estimated to be about 5.8 million persons, compared to 64,027 persons in unincorporated Marin. Table 1 demonstrates these trends.

Table 1

#### POPULATION GROWTH Unincorporated Marin County and Bay Area, 1960-1989

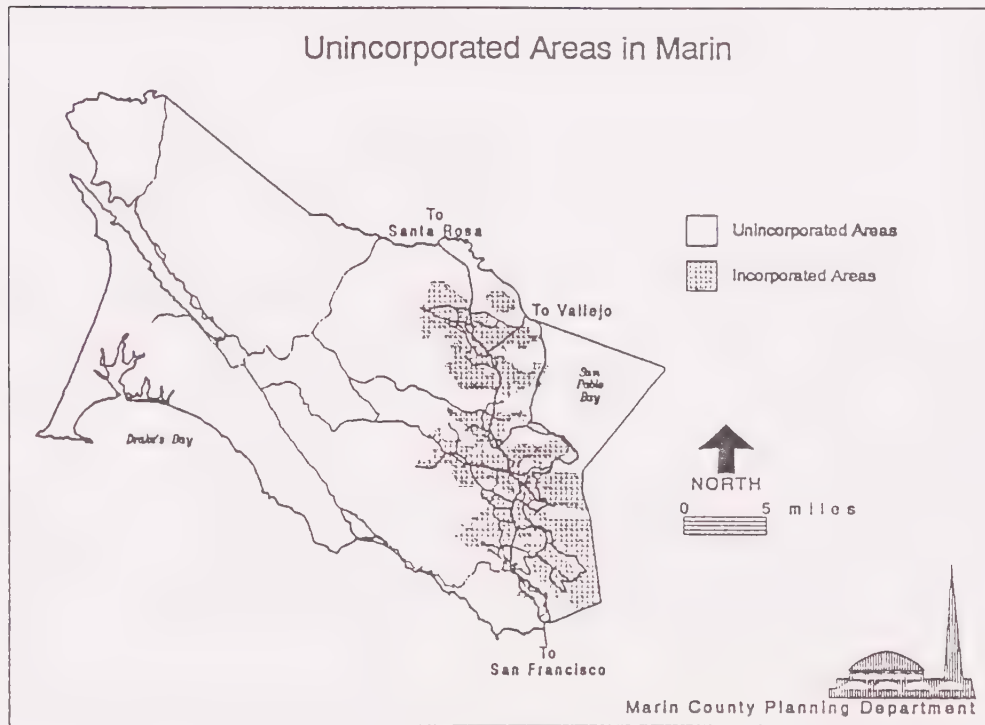
| <u>Year</u> | <u>Unincorporated<br/>Marin<br/>Population</u> | <u>Percent<br/>Change</u> | <u>Bay Area<br/>Population</u> | <u>Percent<br/>Change</u> | <u>Marin's<br/>Share</u> |
|-------------|------------------------------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|
| 1960        | 53,669                                         | N/A                       | 3,638,939                      | N/A                       | 1.5                      |
| 1970        | 65,762                                         | 22.5                      | 4,473,320                      | 22.9                      | 1.5                      |
| 1980        | 63,178                                         | (3.9)                     | 5,179,784                      | 15.7                      | 1.2                      |
| 1989        | 64,027                                         | 1.3                       | 5,793,551                      | 13.2                      | 1.1                      |

SOURCE: U.S. Census of Population and Housing, 1950, 1960, 1970, 1980;  
California Department of Finance, 1989.

<sup>1</sup> 1960, 1970 U.S. Census of Population

<sup>2</sup> 1980, 1989 California Department of Finance, Population and Housing Estimates for Bay Area Counties

Figure 1



### Age of the Population

The birth and maturation of the "baby boom" generation is evident in Marin's population statistics. Many of the children that were born during the "baby boom" era of the late 1940s and 1950s are now part of the resident adult population. As a result, the age of Marin's residents increased over the years. For example, the median age of Marin's population was 30 years in 1970. By 1980, the median age increased to over 33 years<sup>3</sup>.

<sup>3</sup> 1970, 1980 U.S. Census of Population

The median age of Marin's population was higher than most other counties in the Bay Area. The median age of Marin's population was estimated to be about 36 years in 1985 while the median age of the Bay Area was 32 years<sup>4</sup>. This may reflect the inability of large families and younger persons to pay the high cost of living in Marin. The increasingly large proportion of Marin residents in older age groups has planning implications for local housing and social service needs in the coming decades.

### Size of Households

Household size has been decreasing nationwide since the 1950s. People are having fewer children; there are more single-parent households; people are getting married later in life than before; and the divorce rate has increased since 1950. All of these factors have combined to decrease average household size. Marin and the Bay Area reflect this national trend; the 1970 average of 3.1 persons per household for unincorporated Marin and 2.9 persons per household for the region had, by 1989, dropped to 2.4 and 2.5 persons per household respectively<sup>5</sup>.

### Growth in the Housing Stock

Growth in the housing stock in Marin and the Bay Area slowed between 1980 and 1989 compared to the 1960 - 1980 time period. The growth in Marin's housing stock was only 0.5% each year between 1980 and 1989 on the average, compared to 2% between 1960 and 1980. Likewise growth in the Bay Area housing stock dropped from 3% each year on the average to 1.4%.

However, the number of new housing units in both the Bay Area and unincorporated Marin have grown by surprisingly large numbers in relation to growth in population. Table 2 shows that between 1960 and 1980, the Bay Area housing stock grew by approximately 802,000 units, which was more than 50% of the increase in population. Even more dramatic changes have taken place in unincorporated Marin; during this time period the number of new housing units was 84% of the number of new persons<sup>6</sup>. This trend has become even more pronounced in Marin since then. Between 1980 and 1989 unincorporated Marin had an estimated 1,209 units built; 360 more units were added

---

<sup>4</sup> ABAG Projections '89

<sup>5</sup> 1980, 1989 California Department of Finance, Population and Housing Estimates for Bay Area Counties

<sup>6</sup> 1960, 1970, 1980 U.S. Census of Housing; 1960, 1970, 1980 U.S. Census of Population

than persons<sup>7</sup>. In contrast, the Bay Area showed more normal trends; on the average, one house was added to the existing housing stock for every two persons added to the population.

Table 2

HOUSING GROWTH  
Marin County and Bay Area, 1960-1989

| <u>Year</u> | Unincorporated<br>Marin<br><u>Housing<br/>Stock</u> | <u>Percent<br/>Change</u> | Bay Area<br><u>Housing<br/>Stock</u> | <u>Percent<br/>Change</u> | Marin's<br><u>Share</u> |
|-------------|-----------------------------------------------------|---------------------------|--------------------------------------|---------------------------|-------------------------|
| 1960        | 17,286                                              | N/A                       | 1,259,277                            | 42.0                      | 1.4                     |
| 1970        | 21,181                                              | 22.5                      | 1,626,383                            | 29.2                      | 1.3                     |
| 1980        | 25,233                                              | 19.1                      | 2,061,343                            | 26.7                      | 1.2                     |
| 1989        | 26,442                                              | 4.8                       | 2,289,374                            | 11.1                      | 1.1                     |

SOURCE: U.S. Census of Population and Housing, 1960, 1970, 1980;  
California Department of Finance, 1989.

### Housing Prices

Marin is well known as a place of natural beauty and high cost of living. According to the Marin County Board of Realtors, in 1988 the average price of single-family residences in Marin was \$270,997, close to \$60,000 more than the Bay Area average of \$212,757<sup>8</sup>. In 1986, San Mateo was the only County in the Bay Area with more expensive housing than Marin; the median selling price for a house in San Mateo was \$232,415, about \$16,000 more than the median selling price of homes in Marin (\$216,741)<sup>9</sup>. (Housing prices in unincorporated Marin tend to be slightly lower than the county average. Between 1980 and 1986, houses in unincorporated Marin sold for about \$25,000 less

<sup>7</sup> 1980-1989 California Department of Finance, Population and Housing Estimates for Bay Area Counties

<sup>8</sup> This information was reported by the California Association of Realtors in May, 1989.

<sup>9</sup> Phone interviews with Boards of Realtors in each of the nine counties in the Bay Area, June, 1988



than the county average.) Inflated housing prices in Marin are primarily the result of a relatively low housing inventory combined with Marin's high quality of life and proximity to a large metropolitan area.

Because rents tend to correspond with home prices, counties with expensive homes have high rents. In January of 1988, the Bay Area Council reported that the median advertised rent for a two bedroom unfurnished apartment in Marin was \$755 per month, second only to San Mateo and San Francisco in the Bay Area. It was estimated that the median rent in unincorporated Marin was \$670 per month in 1988<sup>10</sup>.

### Jobs/Housing Imbalance

The number of jobs in an area has implications for the number of houses needed in the area. If there is an inadequate supply of affordable housing, persons working locally will tend to commute from less expensive outlying areas. This problem is manifest in Marin. Although large amounts of housing have been added locally, job growth has still outpaced the growth in the housing supply. Furthermore, while Marin housing costs are among the highest in the Bay Area, the payroll from Marin jobs is among the lowest in the region. The resultant jobs/housing imbalance contributes to severe traffic congestion on Highway 101 (the main link between Marin and counties to the north where housing costs are lower).

## Projections

### Population Growth

Marin's total population is projected to increase from 222,568 persons in 1980 to 241,700 persons by the year 1995<sup>11</sup>; this is an increase of 0.6% each year on the average. The projected increase for the Bay Area during the same time period is 1.3% each year on the average. Approximately 64,586 persons will reside in the unincorporated county in the year 1995; this is an increase of 559 over the 1989 population<sup>12</sup>.

---

<sup>10</sup> This figure was estimated by multiplying Marin's median rent in 1988 times a factor representing the differences in sales prices between houses in unincorporated Marin and houses in all of Marin.

<sup>11</sup> ABAG, Projections '89

<sup>12</sup> Projections of the 1995 unincorporated population were derived by multiplying the 1989 ratio of unincorporated county population to total county population times the 1995 projected total county population.

### Age of the Population

Both Marin and the Bay Area are expected to have populations with a higher median age than the current population. The median age of Marin residents is projected to rise to 39 years of age in 1995, an increase of three years from 1985, while the Bay Area median is expected to increase by two years to 35 years of age<sup>13</sup>.

### Size of Households

Household size is expected to continue decreasing in both Marin and the Bay Area. Marin's average household size will decrease to a projected 2.3 persons per household in the year 1995 from 2.4 in 1989. The Bay Area average household size remain at 2.5 persons per household during this same time period<sup>14</sup>.

### Number of Housing Units

Decreasing household size as well as an increasing population will continue to provide a demand for the construction of new housing units in Marin. According to the Association of Bay Area Governments (ABAG), growth in unincorporated Marin's housing stock will total about 2,000 units between 1980 and the year 1995, an increase of 8% over the 15-year period<sup>15</sup>. The number of housing units in the entire county is expected to increase by 15% during this same 15-year interval, and the housing stock of the Bay Area will grow by 24%<sup>16</sup>.

### Housing Prices

Housing prices will probably continue to climb in both Marin and the Bay Area. Developable land is becoming more scarce, and with a sustained regional demand for housing, land prices will undoubtedly continue to rise. Construction costs are also likely to climb as inflation pushes the cost of building materials and labor upward. In addition, development impact fees for housing are expected to continue to rise as local governments increasingly fund infrastructure improvements (transportation, flood control, etc.) with this source of revenue.

---

<sup>13</sup> ABAG, Projections '89

<sup>14</sup> *ibid.*

<sup>15</sup> Projections of the 1995 unincorporated housing stock were derived in the same manner as the 1995 unincorporated population figures. The 1989 ratio of unincorporated to total county housing units was multiplied by the 1995 total number of housing units in all of Marin, including cities and unincorporated areas.

<sup>16</sup> ABAG, Projections '89

### Jobs/Housing Imbalance

The number of jobs is projected to increase dramatically in Marin. Marin industries are projected to employ 37,300 more persons by the year 1995 than in 1980. At that rate of increase, job growth will not only outpace the growth in the housing supply, but will also outpace growth in the labor force. Even if everyone projected to be added to Marin's labor force held a local job, 14,000 workers would have to commute into Marin. The Bay Area faces a similar situation. ABAG has projected that nearly 163,000 workers will have to commute into the Bay Area in the year 2005 due to Bay Area housing constraints (ABAG, Housing Needs Determinations, 1988).

### Planning Implications

These projections suggest that a number of housing issues will need to be addressed in Marin. Additional workers will need affordable housing if they are to live and work in Marin. The expanding population of older persons in Marin will require additional services to meet their special needs. A further reduction in the average household size implies that large houses will tend to be underutilized. Thus, there will likely be a need for more shared housing programs and the construction of smaller, less expensive houses and small apartments, including some with congregate care for frail elderly persons.

## SPECIAL NEEDS POPULATIONS AND HOUSING

### Women-Headed Households

#### Population Characteristics

About 11% of the families in unincorporated Marin were headed by women (2,003 out of 17,600 families) in 1980; 70% of them were families with children. And of these women-headed households with children, 396 (20%) were below the poverty level<sup>17</sup>. Over half of those with children under five years of age were below the poverty level.

The number of women-headed families in 1989 was estimated to be 2,270 households; roughly 450 were below the poverty level<sup>18</sup>. It is projected that some 2,340 women-headed families will live in Marin in the year 1995, an increase of 70 households from 1989. At that time, an estimated 460 of them will be below the poverty level (10 additional families)<sup>19</sup>. It is further estimated that 30 of those 70 additional women headed families will have very low incomes, and 20 will have low incomes. Table 3 shows these income classifications as defined by the U.S. Department of Housing and Urban Development (HUD).

Table 3

#### INCOME CLASSIFICATIONS

---

| <u>Income Classification</u> | <u>Percent<br/>of Median</u> |
|------------------------------|------------------------------|
| Very Low Income              | <50%                         |
| Low Income                   | 50-80%                       |
| Moderate Income              | 81-120%                      |
| Above Moderate Income        | >120%                        |

---

---

<sup>17</sup> 1980 U.S. Census of Population

<sup>18</sup> The 1989 special population figures were all derived by the same method; the 1980 ratio of special population in unincorporated county to total population for the unincorporated county was multiplied by the total 1989 unincorporated county population (from the California Department of Finance population estimates).

<sup>19</sup> The 1995 figures for each special population were derived by multiplying the 1980 ratio of special population in unincorporated Marin to the total population for the entire county times the 1995 total county population (from ABAG, Projections '89).



### Housing Characteristics

The Woman's Needs Assessment prepared by the Marin County Commission on the Status of Women (1983) found the following problems encountered by women in Marin's housing market:

#### Problems With Rental Housing

1. Rents are high compared to the incomes of households. Women must direct a large percentage of their income to rent.
2. Landlords have discriminated against women with children in various ways; high security deposits and density limits are the most common.
3. Some landlords may require higher security deposits and more stringent credit checks of women than of other households.
4. Landlord/tenant relations can be problematic, especially in the area of maintenance.
5. Eviction without just cause is perceived as a threat to secure tenure.

#### Problems with Owned Housing

1. Secure tenure is threatened by divorce. Often a divorcing couple will sell their house as part of a settlement; women then face an expensive housing market.
2. Lower incomes for women result in high percentages of their income being spent for mortgages, taxes, insurance, and maintenance. These burdens are more severe for retired, elderly women with fixed incomes.

In responding to what could be done about these problems, survey respondents suggested landlord/tenant mediation services; an increased supply of low cost units, temporary shelters and transitional housing; and "just cause" eviction laws. There was also support for an anti-discrimination ordinance to prohibit apartment owners and managers from discriminating against female-headed households through rental procedures.

By partially funding the Marin Housing Center's Fair Housing Program, the County indirectly participates in landlord/tenant mediation services. The County has provided a number of low cost units through a variety of affordable housing programs (including support for organizations that provide shared housing, an increasingly popular way to reduce housing costs for female-headed households). Finally, in response to the need for an anti-discrimination ordinance and "just cause" eviction laws, the Marin County Board of Supervisors adopted an ordinance on November 14, 1989, which prohibits discrimination in rental housing against families with children. It covers advertising, rate setting, and eviction procedures. There is a need to expand the County's role in providing affordable housing in order to meet the expected increase in housing needs of lower income woman-headed households in coming years.

## Large Families

### Population Characteristics

In 1980, there were 1,974 families with five or more persons in unincorporated Marin, 11% of all families. By 1989, that figure was estimated to have risen to 2,240 households, and by the year 1995, 2,310 households are projected to be comprised of large families, an increase of 70 large families. Based on the 1989 Housing Assistance Plan (HAP), it was estimated that 45 large families had very low incomes (less than 50% of the median for the County), and 25 large families had low incomes (between 50% and 80% of median) in unincorporated Marin in 1989<sup>20</sup>. By the year 1995, there is projected to be one additional low income large family, and one additional very low income large family.

### Housing Characteristics

The primary housing need for lower income large families is units which are both large and affordable. Marin has an ample stock of large, single-family housing units, but they are normally very expensive to buy or rent. To meet the increased housing need of this particular special population, the County should ensure that one very low income unit, and one low income unit is large enough to accommodate a family of five or more persons.

## Elderly Households

### Population Characteristics

In 1980, 3,100 households in unincorporated Marin (13% of all households) were composed of elderly persons (persons of 65 or more years of age). This percentage has increased since then. In 1989, it was estimated that roughly 3,900 households in Marin were composed of elderly persons, and there are projected to be about 4,000 elderly households by the year 1995, an increase of 100 households.

Approximately 150 of the 3,900 elderly households had very low incomes in 1989, and 75 of the 3,900 households had low incomes according to the 1989 HAP. By the year 1995, it is projected that at least four additional elderly households will have low incomes, and two additional elderly households will have very low incomes.

---

<sup>20</sup> The 1988 HAP for Marin indicates that 165 large families had very low incomes and 103 had low incomes. Since 26% of all occupied housing units in Marin were located in unincorporated areas, it is estimated that 43 large families in unincorporated areas had very low incomes, and 27 large families had low incomes.

### Housing Characteristics

In the 1985 study "Coming of Age in Marin," the Marin County Area Agency on Aging found that most of Marin's elderly population lived alone or with their spouse only. Of those that lived alone, 70% were women. This study went on to document two other important findings. First of all, the elderly are very attached to their homes and would prefer to remain in them. Secondly, elderly renters spend five times more of their income on housing than elderly homeowners. Thus the housing needs of the elderly include affordable rental housing, low interest rehabilitation loans, rental assistance, and easy access to health and social services.

Given the increasing number of seniors in Marin, there is a need for the County to expand its commitment to meeting housing needs of the elderly. The addition of at least four low income and two very low income senior units is necessary to meet the housing needs of this special population. The construction costs of new senior housing could be reduced by making development regulations more appropriate for such projects. Studies have shown that parking needs for seniors are less than those of the general population; seniors also tend to require smaller houses than the general population. Amending development standards to reduce the parking requirements for senior affordable housing developments could make such projects more cost-effective. The County should initiate amendment of development standards to allow reduced parking space requirements for affordable senior housing projects. Continued provision of rental assistance, rehabilitation loans, and home equity conversion programs will help ensure the conservation of existing affordable senior housing. Integrating affordable housing with health and social service facilities is also desirable; this has been done successfully at the Kruger Pines apartment complex.

### Handicapped Persons

#### Population Characteristics

The 1980 U.S. Census of Population reported 4,229 disabled people living in unincorporated Marin. (A disabled person is defined by the U.S. Census as a person between the ages of 16 and 64 with a physical, mental or health condition that has lasted for more than six months.) Based on the U.S. Census figures, there were an estimated 4,290 handicapped people in unincorporated Marin in 1989, including both physically and mentally handicapped persons. It was estimated that there was an unmet



need of 13 beds for mentally handicapped persons in unincorporated Marin in 1989<sup>21</sup>. (As of May, 1990, there was no information available which quantified the unmet housing need for physically handicapped people, however there is probably a significant unmet housing need for this group as well). By the year 1995, an estimated 4,320 physically and mentally handicapped people will reside in unincorporated Marin (an increase of 30 persons).

### Housing Characteristics

People who are physically, mentally, or developmentally disabled have housing needs that range from minor alterations of their existing house to total care in a specially-designed facility. Generally, people with physical handicaps require housing adapted to their condition of limited mobility. Adaptations include wheelchair ramps, wider doors, rails and other fixtures. All commercial buildings and apartments are now required by State law to be accessible to physically handicapped persons. For those single and multifamily dwelling units which are exempt from State accessibility regulations, alterations and additions to existing housing can provide accessibility at moderate costs. The County should initiate steps toward amending zoning regulations to encourage more accessible housing by allowing well designed wheelchair ramps and elevators to be located within property setbacks without requiring a variance from zoning regulations.

Another form of physical handicap which is becoming increasingly prevalent in Marin is hypersensitivity to chemicals used in construction materials and other airborne pollutants. An increasing number of individuals with this disability are expected to come to Marin because of the good air quality found here<sup>22</sup>. The County should undertake research to 1) identify appropriate sites to build units suitable for this group of people, 2) review the relationship between building materials required in such units and building materials required by State Health and Safety Standards, and, 3) if necessary, initiate programs to ensure the production of units suitable for people with this form of handicap.

People with developmental and/or emotional disabilities often require social services in conjunction with housing. The less disabled may function well in typical housing situations, using services on an out-patient basis. The more severely disabled may require specialized housing.

---

<sup>21</sup> This information was obtained in a phone interview with Carol Bonsach of the Golden Gate Regional Center, April, 1989.

<sup>22</sup> Janet Kern, the director of the Marin Center for Independent Living, said in January, 1989 her office served 7 hypersensitive people (interview with Janet Kern, 2/9/89).



The most common type of specialized housing in Marin serving mentally handicapped people are group homes in which several disabled individuals receive support from service providers who also live in the house. Recent amendments to the Federal Fair Housing Act suggest that Marin's requirement for group homes of six or more persons to obtain a Use Permit may be in violation of Federal housing law. There is a need to research this issue and, if necessary, amend the County's zoning regulations to remove this Use Permit requirement. The County should increase its support of organizations which provide group housing to ensure that not only the existing unmet need, but also projected increases in future needs are met.

## **Farm Workers**

### **Population Characteristics**

Agricultural operations in Marin consist of family-owned and operated ranches. Dairy and beef cattle, sheep, and horses comprise the stock. A few other farms provide feed and silage for the ranches. The farm owner and worker population in Marin is fairly small; the 1980 U.S. Census of Population reported that only 576 people lived on farms, mostly living in the unincorporated areas of the County. The 1989 population of farm workers was estimated to be 585 individuals, and by the year 1995, that population is projected to increase by five to 590 persons.

### **Housing Characteristics**

For the most part, family farm workers live year-round on the farm. Non-family workers who live on farms are housed in a variety of ways. Some are in mobile homes or cottages. Others live in former bunkhouses or in houses vacated by the family when they moved to a new house. By nature, ranch operations in Marin do not have the seasonal labor requirements of crop agriculture. Since they normally do not use migrant farm workers, there is not a significant need for the County to help provide temporary housing for seasonal farm workers. The housing needs of additional farm workers will probably be met by individual ranch owners.

## **The Homeless**

### **Population Characteristics**

Homeless people who require emergency shelters and transitional housing include veterans, families with children, and mentally ill persons. Their population in Marin varies considerably on a given date. Best estimates of the population range from 300 to 500 persons. Based on this figure, it is estimated that there are between 80 and

140 homeless persons in unincorporated Marin<sup>23</sup>. Between 10 and 20% are families (10-30 persons), and 24% are females (20-35 persons); 31% of Marin's homeless are employed<sup>24</sup>. As housing becomes less affordable in the future, and as Federal, State, and local social service funds continue to decline, we can expect the number of homeless persons to increase faster than other segments of the population.

### Housing Characteristics

There are two types of housing needed by homeless people, transitional housing and emergency shelters. The focus of transitional housing facilities is to provide a stable living environment until clients can make their own living arrangements. Sometimes people stay for extended periods of time (i.e. two to six weeks). Transitional housing tends to have more private sleeping and living areas, and is thus more appropriate for families with children. In addition, the services provided by transitional housing facilities, such as job training and counseling, tend to be more comprehensive.

Emergency shelters, on the other hand, are used primarily by homeless adults who need food and a warm place to sleep. Typically clients stay at the facility on a day-to-day basis. Some emergency shelters provide numerous services such as job training, medical care, literacy services, drug and alcohol counseling, and psychiatric counseling. Others provide transportation to such services located off-site.

The 1988 HAP states that the Marin Housing Center in San Rafael was able to meet the entire County's demand for transitional shelter. In contrast, there were no known permanent emergency shelters in unincorporated Marin as of March, 1991. The armory (located in San Rafael) was used as an emergency shelter for the winters between 1987 and 1990. It served an average 50 persons each night in the winter of 1988/1989, and up to 75 persons per night in the winter of 1989/1990. Presumably some of the clients were from unincorporated parts of the county.

The Marin County Board of Supervisors voted in May, 1988 to provide a year-round shelter for the homeless to replace the temporary shelter at the armory. The Board also voted to support the launching of a fund-raising effort to finance the proposed program. Preliminary plans to locate a large, semi-permanent emergency shelter near the armory

---

<sup>23</sup> Information was provided by Wayne Wechsler, the former Director of the Marin Housing Center, in a phone interview in May, 1988. In 1989, 27% of the total county population lived in unincorporated Marin; 27% of the total county homeless population is about 80-140 people.

<sup>24</sup> Statistics provided by the Marin Housing Center, 1989.

were withdrawn in the summer of 1989 due to public opposition. At that time, an advisory committee was established to research alternatives, hold public hearings and make recommendations to the Marin County Board of Supervisors on the location and design of a permanent emergency shelter. These recommendations are scheduled to be made in March, 1990.

The County has ensured that there are sites with appropriate zoning and adequate infrastructure to allow the location, construction, and operation of emergency shelters and transitional housing facilities (see Inventory of Emergency Shelter Sites, page 26).



## OTHER HOUSING ISSUES

### ABAG Regional Housing Needs Determinations

State legislation enacted in 1980 (Chapter 1143, Statutes of 1980; AB 2853) requires ABAG to determine the existing and projected Bay Area regional housing needs for persons at all income levels. The factors used by ABAG in determining regional housing needs included market demand for housing and employment opportunities. ABAG determined each County's and each city's share of the regional housing needs. Local housing elements and local housing programs are not required to "meet" their share of the housing needs; meeting the identified need may exceed the community's abilities to finance or design such housing programs, especially those to assist lower income households. However, State law does require local governments to consider these housing needs in the process of updating the Housing Element, and make a sustained and serious attempt to address housing needs.

ABAG assigns to Bay Area counties the housing needs which fall outside the Sphere of Influence of any city (Figure #2 shows the location of these areas). The needs originally projected by ABAG have been revised to identify Marin County as the jurisdiction responsible for meeting the needs for that portion of San Rafael's Sphere of Influence which is not likely to be annexed by the city between 1988-1995. The revised housing needs for the County are shown in Table 4.

Table 4

### REVISED REGIONAL HOUSING NEEDS Marin County, 1988-1995

|                                  | Projected Need<br>1988-1990* | Projected Need<br>1990-1995 | Alternative Zoning<br>Need, 1988-1995 | Total Need<br>1988-1995 |
|----------------------------------|------------------------------|-----------------------------|---------------------------------------|-------------------------|
| Total County                     | 4,108                        | 5,628                       | 1,350                                 | 11,086                  |
| Unincorporated<br>County Total** | 147                          | 641                         | 38                                    | 826                     |
| Housing Need By<br>Income Group  |                              |                             |                                       |                         |
| Very-Low                         | 28                           | 122                         | 7                                     | 157                     |
| Low                              | 22                           | 96                          | 6                                     | 124                     |
| Moderate                         | 29                           | 127                         | 7                                     | 163                     |
| Above Moderate                   | 68                           | 296                         | 18                                    | 382                     |

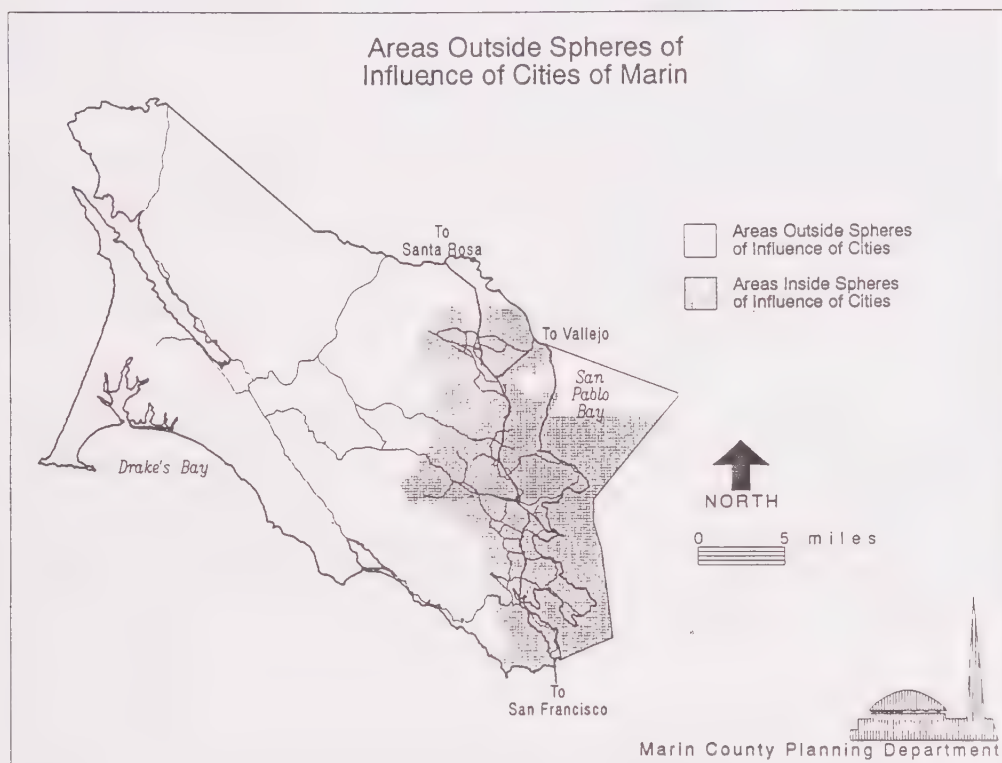
Source: ABAG Regional Housing Needs Determinations, 1989.

\* Projected 1988-1990 need for the entire county includes an existing need of 597 units.

\*\* As discussed above, unincorporated county for this table does not include areas within the sphere of influence of any city except San Rafael.



Figure 2



ABAG and County staff have determined that by the end of 1990 a total of 147 units will have to be built in order to meet the County's share of the regional housing needs; 50 of these units will need to be affordable to households earning below moderate incomes (see Table 3, page 9 for the income levels included in each income classification). Between 1990 and 1995, a total of 641 units will be needed; 218 of these units will have to be affordable to those with below moderate income.

It is probable that the County will meet its portion of the regional housing need for units which are affordable to moderate and above moderate income persons. County Planning staff estimates that potentially 7,403 units could be developed in unincorporated parts of the county. Even if only 10% of the units are constructed between 1988 and 1995, the County will have exceeded by nearly 200 units the number needed for moderate and above moderate income households.

It is also probable that the County will meet its portion of the regional housing need for very low and low income households. As shown in Table 5, an estimated 170 very low income units, and 111 low income units may be constructed between 1988 and 1995

under current policies, programs, and regulations. A new program has been added (Program H-1.2e **Affordable Multifamily Housing**) which is designed to provide sites for the construction of an additional 22 very low income units, and 13 low income units. Therefore, the County is likely to meet its portion of the regional housing need for very low and low income households, which is 157 units and 124 units, respectively.

Table 5

PROJECTED NUMBER OF LOW AND  
VERY LOW INCOME UNITS CONSTRUCTED  
Unincorporated County, 1988-1995

| Income Level    | Program                                                          | Number of Units |
|-----------------|------------------------------------------------------------------|-----------------|
| Very Low Income | Redevelopment Agency                                             | 120             |
|                 | Section 202 Construction Loan                                    | 35              |
|                 | Community Development Block Grant                                | 7               |
|                 | Existing Development Potential at a density of 30 units per acre | 6               |
|                 | Double Unit Opportunity Program                                  | 2               |
|                 | <u>Program H-1.2e</u>                                            | <u>22</u>       |
|                 | Total                                                            | 192             |
| Low Income      | Community Development Block Grant                                | 51              |
|                 | Second Units                                                     | 60              |
|                 | <u>Program H-1.2e</u>                                            | <u>13</u>       |
|                 | Total                                                            | 124             |

Source: Marin County Planning Department, 1991.

### Affordability

The high cost of housing continues to be an issue of great concern to the local population. Virtually everyone in the community is impacted by high housing costs: social and economic diversity within the community is restricted; first-time home buyers are often forced to move to less expensive areas outside the county; and businesses may have to increase the wages offered in order to compete for scarce employees, thereby contributing to local inflationary cycles.

For first-time home buyers, housing has become exceedingly difficult to purchase. The median price of a Marin home was \$270,997 in 1988<sup>25</sup>. The annual carrying costs (including mortgage payments, property tax, and insurance) would be affordable to households earning \$88,700<sup>26</sup>. However, the median income for a 4-person Marin household was \$42,500 in 1988<sup>27</sup>. These figures indicate that far less than half of Marin's population would be able to purchase a home for the first time.

Housing for renters was much less expensive than for home buyers. The median rent for a typical two-bedroom house in January, 1988 was \$755. This would be affordable to persons earning about \$30,000 a year, well below the 1988 median household income for a family of four. However, based on the 1980 U.S. Census figures for overpayment, renters earn a great deal less than the median income, so affordability is an issue of concern to renters as well.

#### Overpayment By Renters

Table 6 shows that 43% of the renters in unincorporated Marin, including areas within the sphere of influence of cities in Marin<sup>28</sup>, paid more than 25% of their income for housing (3,357 out of 7,811 households) in 1989<sup>29</sup>. Table 6 also shows that the lower a renter's income, the more likely the household will overpay for housing. For example, an estimated 90% of the renters earning \$5,000 or less overpaid for housing in 1989, while only 15% of the renters earning \$20,000 or more overpaid for housing. A total of 1,464 lower income households overpaid for rental housing in 1989<sup>30</sup>.

---

<sup>25</sup> Phone interview with Allen Stansbury, formerly with the Marin County Board of Realtors

<sup>26</sup> This assumes a 20% down payment with a 30-year fixed rate mortgage at 10% interest.

<sup>27</sup> Information provided by the Housing Authority of the County of Marin

<sup>28</sup> With the exception of the discussion of ABAG's regional housing needs determinations, the information presented in this Element for unincorporated Marin includes areas within the sphere of influence of cities.

<sup>29</sup> Households paying more than 25% of their income for housing are considered to be overpaying for housing.

<sup>30</sup> Figures were derived by multiplying the number of occupied units in unincorporated Marin in 1989 (as estimated by the California Department of Finance) times the 1980 ratio of households (in unincorporated areas) overpaying for housing to the total number of occupied housing units (in unincorporated Marin).

Table 6

ESTIMATED PERCENTAGE OF INCOME USED FOR HOUSING  
Unincorporated Marin, 1989

| Percent of<br>Income Paid<br>for Housing | Number of Renter-Occupied Housing Units |                    |                      |                      |           |
|------------------------------------------|-----------------------------------------|--------------------|----------------------|----------------------|-----------|
|                                          | Household Income                        |                    |                      |                      |           |
|                                          | <\$5,000                                | \$5,000<br>\$9,999 | \$10,000<br>\$14,999 | \$15,000<br>\$19,999 | \$20,000  |
| <20%                                     | 36                                      | 65                 | 220                  | 259                  | 2,262     |
| 20-24%                                   | 39                                      | 101                | 130                  | 192                  | 1,150     |
| 25-34%                                   | 43                                      | 199                | 392                  | 373                  | 603       |
| >35%                                     | <u>642</u>                              | <u>761</u>         | <u>107</u>           | <u>220</u>           | <u>17</u> |
|                                          | 760                                     | 1,126              | 849                  | 1,044                | 4,032     |

|        | Number of Owner-Occupied Housing Units |                    |                      |                      |              |
|--------|----------------------------------------|--------------------|----------------------|----------------------|--------------|
|        | Household Income                       |                    |                      |                      |              |
|        | <\$5,000                               | \$5,000<br>\$9,999 | \$10,000<br>\$14,999 | \$15,000<br>\$19,999 | \$20,000     |
| <20%   | 4                                      | 176                | 424                  | 708                  | 7,732        |
| 20-24% | 26                                     | 26                 | 41                   | 121                  | 1,816        |
| 25-34% | 54                                     | 78                 | 180                  | 235                  | 1,491        |
| >35%   | <u>266</u>                             | <u>400</u>         | <u>337</u>           | <u>282</u>           | <u>1,092</u> |
|        | 350                                    | 680                | 982                  | 1,346                | 12,131       |

Source: 1980 U.S. Census of Housing,  
1989 California Department of Finance, Population and Housing Estimates for Marin County, January 1989.

### Overpayment by Owners

Most homeowners in the unincorporated portions of Marin do not overpay for housing. Table 6 shows that about three-fourths of them spend less than 25% of their income on housing (11,074 out of 15,489 households). As with renters, a larger share of lower income homeowners overpay for housing; 320 out of 350 homeowners earning \$5,000 or less overpaid for housing in 1989. There was an estimated total of 1,834 lower income households overpaying for owned housing. These figures provide further evidence that there is a need for more housing which is affordable to lower income households.



## Loss of Affordable Housing

### Demolitions and Conversions

Out of the 24 demolition permits granted in the unincorporated area of the county between June 1, 1984 and May 20, 1989, only six of the permits specified that single family dwelling units were being demolished. This is an insignificant part of the housing stock. There were 26 conversion permits issued during this same time period for the unincorporated area of Marin County. Most of these involved the conversion of garages into unspecified uses.

Marin County has a condominium conversion ordinance which prevents the conversion of rental units to condominiums if the vacancy rate drops below 5%. The vacancy rate was between 1% and 2% between 1983 and 1988. The Housing Assistance Plan for Marin states there have been no condominium conversions during this period nor are there likely to be any in the near future. Conversion and demolition therefore have not significantly reduced the housing stock in Marin between 1983 and 1985.

### Termination of Federal Subsidies

Over the next twenty years, close to 655 Federally subsidized housing units in Marin will be subject to conversion to market-rate rents through prepayment of Federally subsidized mortgages and rent subsidies. Without this assistance, those units owned by profit-motivated individuals or partnerships could be lost as part of the affordable housing stock. The only project in unincorporated Marin falling into this category is the Oak Knolls II apartment complex in Marin City which is eligible for prepayment of the mortgage in 1995. However, since this project is a limited equity cooperative, it is very unlikely that these units will be converted to market rate.

### Filtering up

A major loss of affordable housing results from the "filtering up" of units to families with higher incomes (see "Constraints: Filtering Up", page 39). Because all housing units in Marin command relatively high prices, it is very difficult for a low or moderate income family to purchase a home. When a home owned by a low or moderate income family is sold, the inflationary housing market tends to make it affordable only to households with a higher income. The County is not able to estimate the extent of filtering up because the incomes of the buyers and sellers are not known.

**Overcrowding**

A housing unit is considered by the U.S. Census to be overcrowded when there is more than one person per room (not including bathrooms, porches, foyers, halls, or half rooms). Overcrowding does not seem to be a problem in unincorporated Marin. Less than 2% of all occupied housing units in 1980 had more than one person per room<sup>31</sup>. Since the number of persons per household has declined since then, we can assume that less than 2% of all housing units in the county are presently overcrowded.

A closer look at the data reveals that under-crowding or under-utilization may be more prevalent in Marin than overcrowding. For example, in the unincorporated portion of the county, the 1980 U.S. Census of Housing indicates there was an average of 5.2 rooms in each housing unit. The Census also indicates that about 2.15 persons live in the average housing unit. This ratio suggests a use rate of about 0.41 persons per room, slightly lower than the Bay Area average of 0.45 persons per room.

**Vacant Housing Units**

The vacancy rate is defined here as the percentage of total housing units which are either for sale or for rent. A total of 469 units were for sale or for rent in unincorporated Marin. That represented 2.0% of the total housing stock<sup>32</sup>. The vacancy rate in unincorporated Marin was estimated to be 1.3% in 1989<sup>33</sup>.

**Tenure of Housing**

Of the 23,254 occupied housing units in the unincorporated county in 1980, 66% were owner-occupied, and 34% were renter-occupied. Applying these percentages to the number of occupied units in unincorporated Marin in 1989 leads to the estimate that there were 16,670 owner-occupied and 8,418 renter-occupied units in unincorporated Marin in 1989.

---

<sup>31</sup> 1980 U.S. Census of Population

<sup>32</sup> 1980 U.S. Census of Housing

<sup>33</sup> 1989 California Department of Finance, Estimates of Population and Housing for Marin County, 1989

**Substandard Housing**

Houses in Marin command such a high price in the housing market that owners who can afford to improve or maintain their unit's quality have a strong incentive to do so. An estimated 540 substandard units were located in unincorporated Marin as of 1988<sup>34</sup>. Based on these figures, there is a need to expand rehabilitation programs in unincorporated Marin.

**Housing Needing Replacement**

The number of abandoned units in the county was negligible in 1988<sup>35</sup>. Because of high land values and housing costs in the unincorporated county, units which are substandard to the point of needing replacement are generally torn down and replaced.

**Energy Conservation**

Minimizing energy used for space and water heating as well as air conditioning can significantly increase the affordability of housing. Water heating is second only to space heating in total energy usage. Energy use can range anywhere from \$75 to \$200 per month in homes heated by electricity<sup>36</sup>. The County has attempted to minimize energy costs for its residents by implementing several energy conservation measures which are detailed below.

**Solar Access Ordinance**

- Regulates street orientation of new dwelling units in subdivisions
- Ensures that buildings are designed for purposes of solar access
- Allows winter heat gain onto rooftops and sidewalks
- Requires summertime shading of streets and parking lots

**Wind Energy Ordinance**

- Establishes criteria for the location of wind energy conversion systems

**Home Weatherization Program**

Marin Citizens for Energy Planning and PG&E offer free installation of attic insulation, weather stripping, caulking, water heater blankets, low flow shower heads, duct wrap and minor home repairs for low income households.

---

<sup>34</sup> The most current information on housing stock conditions comes from the 1988 HAP written by the Marin County Planning Department. The HAP indicated that there were 2,052 substandard units in all of Marin. Since 26% of all housing units were located in unincorporated Marin in 1988, it was assumed that 26% of all substandard units were likewise located in unincorporated Marin.

<sup>35</sup> *ibid.*

<sup>36</sup> This information was obtained in a phone interview with Scott Callow, PG&E Energy Conservation Specialist, May, 1988.



### Energy Crisis Intervention Program

Funded through the State Department of Economic Opportunity, this program is designed to help low income residents pay delinquent energy bills to avoid interruption of service.

### Land Inventory

Pursuant to State law, Housing Elements are required to contain an inventory of land suitable for residential development, and an analysis of the relationship of zoning and public facilities to these sites. The purpose of this analysis is to compare the total holding capacity with the locality's new construction need. State law requires each locality to identify adequate sites to accommodate existing and projected needs of all economic segments of the community (California Government Code, Section 65583).

Table 7 compares the development potential of vacant parcels in unincorporated areas with the County's share of the regional housing need at all income levels. Table 7 shows that 7,403 single-family units could be developed on 28,744 acres of vacant land in unincorporated areas based on existing zoning regulations, general plan policies, and environmental considerations (i.e. slope, wetlands, floodplains, etc.). Development on these parcels will be affordable primarily to above moderate income households. Hence, the County has more than a sufficient amount of land to meet its share of the regional housing need for above moderate income households, which is 382 units.

There will also be some moderate income and low income units produced in these single-family areas. Implementation of the County's inclusionary zoning ordinance could result in the development of 212 units affordable to moderate income households: 49 units above the County's share of the regional housing need in this income category.

An undetermined number of second units could also be constructed on these vacant single-family lots (as well as on lots with existing development). Based on the number of second units developed between 1983 and 1988, it has been estimated that 60 second units will be constructed between 1988 and 1995. A 1990 second unit rent survey taken by the Marin County Planning Department shows the average rent charged for second units is \$700 in the County. Hence, they are normally affordable to low income households (two-person households earning 79% of the median income).



Table 7

COMPARISON BETWEEN DEVELOPMENT POTENTIAL AND HOUSING NEED  
Unincorporated County, 1991

| Income Group   | Housing Units Needed | Residential Development Potential | Comments                                                                                                                                                                              |
|----------------|----------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Above Moderate | 382                  | 7,403                             | Units can be constructed on 28,744 acres of vacant parcels zoned for single-family use.                                                                                               |
| Moderate       | 163                  | 212                               | Units can be provided through the County's inclusionary zoning ordinance.                                                                                                             |
| Low/Very Low   | 281                  | 60                                | Low income units can be provided through the County's second unit ordinance                                                                                                           |
|                |                      | 6                                 | Very low income units can be constructed on parcels currently zoned for densities of 30 units/acre                                                                                    |
|                |                      | 22                                | Very low income units may be constructed on parcels that will likely be rezoned to densities of 30 units per acre                                                                     |
|                |                      | 13                                | Low income units may be constructed on parcels that will likely be rezoned to densities of 24 units per acre.                                                                         |
|                |                      | 215                               | Low and Very low income units can be constructed, with public and private subsidies, on parcels currently zoned for multifamily uses at densities between five and 16 units per acre. |

Source: Marin County Planning Department, December, 1991

The remaining low income units, and all of the very low income units needed will be constructed on parcels zoned for multifamily housing. Table 7 shows that there is currently land available to accommodate six multifamily units at a density of 30 units per

acre, a density at which very low income housing may be produced without subsidies. Implementation of Program H-1.2e **Affordable Multifamily Housing** will likely provide sites to allow the construction of 22 more units at this density. Program H-1.2e is also likely to provide sites for the construction of 13 units at 24 units per acre, a density at which housing affordable to low income households can be produced without subsidies.

A significant amount of land in unincorporated areas is currently zoned at densities between five and 16 units per acre. Affordable housing can be produced within this density range with the assistance of public and private subsidies. Table 7 indicates that 215 low and very low income units could be developed on vacant parcels zoned to allow densities between five and 16 units per acre.

Following are several examples of low and very low income units that either have been, or are likely to be produced at densities between five and 16 units per acre:

- In 1987, 35 very low income units were constructed at a density of 6.5 units per acre in Point Reyes Station. The site was initially zoned to allow a maximum of 3.8 units per acre. It was rezoned to allow 6.5 units per acre. This project was assisted with Section 202 Construction loans and Community Development Block Grant (CDBG) funds. The CDBG program provided \$50,000 towards acquisition of the site.
- In 1990, a Master Plan was approved for Braun Court, a 30-unit project on a parcel originally zoned to allow a density of 3.3 units per acre, and rezoned to allow 5.8 units per acre. The project was also granted a density bonus of 25% over the allowed density. Seven units in this project will be very low income, nine units will be low income, and 14 units will be moderate income. This project has received assistance from the County's Housing Trust Fund, the CDBG program, the Marin Community Foundation, and other private sources. The CDBG program is expected to contribute \$124,000 of the \$3.8 million total project cost.
- As of February, 1990, a Master Plan is being reviewed for the Marin City Redevelopment project in which at least 120 very low income units will be produced at a density of 9.7 units per acre. The project sponsors have received funding from Security Pacific Bank to purchase the project site, to redesign the highway interchange, and to move an existing structure. According to financing plans formulated in December, 1990, permanent funding for construction of all the commercial space and residential units will be acquired in October, 1992 from a

Table 8 gives the development potential for multifamily-zoned parcels at various densities.

Table 8

POTENTIAL DEVELOPMENT ON VACANT MULTIFAMILY PARCELS  
Unincorporated County, 1991

| Number of<br>Acres | Units Per<br>Acre | Number of<br>Potential Units |
|--------------------|-------------------|------------------------------|
| 12,751.0           | <1.01             | 1,106                        |
| 435.0              | 1.01-2.00         | 478                          |
| 9.8                | 2.01-3.00         | 23                           |
| 8.0                | 3.01-4.00         | 31                           |
| 1.4                | 4.01-5.00         | 7                            |
| 6.6                | 5.01-6.00         | 34                           |
| 0.0                | 6.01-8.00         | 0                            |
| 35.6               | 8.01-10.00        | 341                          |
| 0.7                | 10.01-12.00       | 8                            |
| 1.1                | 12.01-16.00       | 16                           |
| 0.0                | 16.01-29.99       | 0                            |
| 0.2                | 30.00             | 6                            |

Source: Marin County Planning Department, December, 1990

For the County to meet its share of the regional housing need, 281 units of low and very low income housing are needed. Tables 7 and 8 show the County already has enough land to accommodate all 281 of the units needed for low and very low income households. Sites for another 22 very low income units, and 13 low income units will likely be provided through the new Program H-1.2e **Affordable Multifamily Housing**.

Development between 1988 and 1995 will be impacted by water capacity constraints (see Government Constraints: Water Capacity, page 42 for more information).

#### Inventory of Emergency Shelter Sites

Emergency shelters and transitional housing facilities providing housing for less than six persons are allowed in all residential zoning districts. It is estimated that as of 1989, 17,162 units in unincorporated Marin could be used for emergency shelter and transitional housing for less than six persons at a time. Emergency shelters and

large investment fund. The Redevelopment Agency has been asked to pay for public improvements. Construction of both the residential and commercial portions of the project is scheduled to be completed in October, 1993.

- In 1989, ten units of low income owner-built housing were constructed in West Marin with assistance from the CDBG program, the Housing Trust Fund, and other sources.
- Bates Canyon, a nine unit project, is proposed for construction in San Geronimo Valley. Six units will be affordable to low income seniors. The site for this project was provided by the developer in partial fulfillment of inclusionary zoning ordinance requirements. The project is also expected to receive CDBG funds.
- 15 units of housing affordable to low income households are proposed for construction in other parts of the County. These units have, and will likely continue to receive funding from the CDBG program, the Housing Trust Fund, and other sources.
- An 11-unit project to provide housing for low income, environmentally sensitive households has been proposed for construction in the northern part of the County. This project has received predevelopment cost assistance from the County's Housing Trust Fund and the CDBG Program. The project has also received funding commitments through the Section 202 Construction Loan Program. The project sponsors are currently negotiating to purchase a site for the project.
- A number of local non-profit organizations are developing plans for other housing projects which may receive funding through the Section 202 Construction Loan Program. San Geronimo Valley Senior Housing is looking at two sites in San Geronimo Valley which may provide 10 very low income units. The West Marin Affordable Housing Association is planning a 10-20 unit very low income housing project in West Marin. And Catholic Charities is planning to do a 20 to 50 unit very low income housing project.



transitional housing facilities providing housing for six or more persons are allowed on all parcels zoned for multifamily residential use subsequent to obtaining approval of a use permit. It is estimated that with use permit approvals, 2,669 units could be used to shelter six or more homeless persons at a time<sup>37</sup>. Given an existing unmet need of housing for 80 to 140 homeless persons, the County clearly has a sufficient number of sites with adequate public services to meet the housing needs of this special population.

### **Consistency with Other Elements**

There will be a high degree of consistency between the Housing Element and each of the other Elements in the Countywide Plan since all of the other Elements are being revised concurrent with the revision of the Housing Element. Therefore, the information in the Housing Element which comes from the land use databases (i.e. land inventory, public facility constraints, etc.) will be the same information used in other Elements. In addition, the objectives, policies and programs of the Housing Element will be consistent with objectives, policies, and programs of other Elements.

### **Constraints**

State law requires local governments to document constraints upon the maintenance, improvement, or development of housing, including both governmental-imposed and market constraints. Where appropriate, the County is directed to remove or mitigate such constraints with programs specified in the Goals, Policies and Programs section of the Housing Element.

#### **Governmental Constraints**

##### **Reduced Federal Support**

The most significant constraint to providing affordable housing is the declining amount of Federal funds for housing. Most of the housing affordable to very low income households is subsidized by Federal programs. Popular programs which have long been mainstays of the Federal housing effort have either been eliminated or cut back. In an era in which a variety of factors have increased the cost of housing, cutbacks in Federal programs have severely limited the ability of local government to assist lower income

---

<sup>37</sup>

It was assumed that 75% of the development in unincorporated Marin was located in close proximity to public services (e.g. public transportation, job counseling, etc.), hence may be appropriate for emergency shelter and transitional housing facilities. Based on the 1989 housing estimates of the California Department of Finance, 75% of the total number of single family units (potential shelter sites for less than six persons) in Marin was 17,162 units. It was further assumed that emergency shelters and transitional housing facilities for more than six persons would be allowed in all multi-family units of five or more attached units; 75% of this number is 2,669 units.

people in finding decent housing opportunities. Due to continued Federal budget deficits, it is unlikely that there will be significant increases in Federally funded housing programs in coming years. Rather, cutbacks in existing programs seem more likely.

### Zoning Regulations

There are three groups of zoning districts in unincorporated Marin: agricultural, urban, and planned (for a list of permitted uses and setback requirements in selected zoning districts in the County, see Appendix F). The agricultural group consists primarily of agricultural areas characterized by low density housing. The minimum lot size ranges from two to 60 acres (except in the Suburban Agricultural and Limited Agriculture Districts which allow 7,500 square foot lots). Such large lot size requirements do constrain the development of housing, but the public welfare of maintaining agriculture has been found to be a more significant concern. It would be detrimental to the public welfare to encourage higher density development in agricultural districts (with the possible exception of Suburban Agriculture and Limited Agriculture Districts).

The urban group of zoning districts is basically comprised of One Family (R1), Two Family (R2) and Multiple Family Residence (R3) districts (the other districts in this group, Restricted Residential and Residential Estates, are variations of the One Family Residence District).

One-Family Residence Districts (R1 districts) are primarily comprised of single-family dwelling units. Other permitted uses include home occupations, schools, day child care centers, and churches. Buildings cannot be more than 35 feet in height and must be set back from the property lines as follows:

Front yard Minimum of 25 feet  
Side yard Minimum of six feet  
Rear yard Minimum of 20% of lot depth  
(Maximum of 25 feet required)

Furthermore, the floor area of the building divided by the square footage of the lot (the "floor area ratio", or FAR) shall not exceed 0.3, and the lot can be no less than 7,500 square feet.

The zoning requirements of Two Family (R2) and Multiple Residence (R3) districts are similar to those of One Family Residence districts. A lot in an R2 district may be as small as four thousand square feet, and both two-family and one-family dwellings may be built. R2 districts allow all the same uses as R1 districts as well as the construction of two-family units (which are not allowed in R1 districts). On R3 lots, three or more

dwellingings are allowed, depending on the lot size. (Seven units could be built on a 7,000 square foot lot, while only three units could be placed on a 3,000 foot lot.) Buildings may be 45 feet in height, 10 feet higher than allowed in either R1 or R2 districts. In addition, the maximum FAR in R3 districts is 0.40. The front yard setback requirement is a minimum of 20 feet; rear yards must be no less than 15 feet, and side yards are one foot greater than those required in R1 and R2 districts for buildings more than three stories in height. The uses permitted in R3 districts are also slightly different from those permitted in R1 and R2 districts. Hospitals, group homes, and emergency shelters are all permitted in R3 Districts, as well as offices and hotels.

There are two zoning districts which are often combined with the districts described previously. Agricultural and One Family Residence Districts are often combined with "B Districts", which allow for variation in lot size within the R1 and A districts from 6,000 square feet up to 10 acres. Multiple Family Residence Districts are often combined with "G Districts" which reduce the density allowed on lot: on a 26,250 square foot lot, a maximum of 26 units would be allowed in an R3 District, 17 units in an R3-G1 District, 13 units in an R3-G2 district, 10 units in an R3-G3 district, and seven units in an R3-G4 District.

Districts within the planned group allow more flexible site designs than the R1, R2, and R3 districts. Because the sites within these districts have particular characteristics such as slope instability, steep topography and/or other constraints, standard setbacks do not apply, and flexibility is permitted to allow house design and siting that respects the natural features of the site.

There are three different planned districts: Residential Single Family (RSP), Residential Multiple (RMP), and Agricultural Residential (ARP). The uses permitted in each of these districts are essentially the same as those permitted in equivalent districts in the agricultural and urban groups. RSP districts allow basically the same uses allowed in R1 districts, RMP districts allow uses permitted in R2 and R3 districts, and ARP districts allow uses consistent with other agricultural districts including the construction of farmworker housing. The maximum number of units allowed on each lot varies from 0.01 per acre up to 30 per acre, depending on the special characteristics of an area. On steep slopes, only one unit may be allowed for every four acres of land; hence the area may be zoned RSP 0.25. Lots are often not built to the maximum allowable density due, in part, to community pressure to reduce density during the public hearing process. There is a need to mitigate this constraint to housing development by specifying the



density ranges in Residential and Residential/Agricultural Planned zoning districts<sup>38</sup>. Furthermore, establishing a range of densities at which development may occur will make the County's zoning ordinance better comply with State planning law which requires jurisdictions to allow development at the level specified in each particular zoning district unless specific findings are made<sup>39</sup>.

For clustered developments, the County requires areas of the site outside the developed portion be restricted by non-development, private open space easements to ensure that development does not exceed allowable densities. The County also requires that each residential subdivision contribute to the provision of parkland areas. Currently, the County's zoning ordinance does not contain any growth management requirements.

Subsequent to obtaining a use permit, second units are allowed in various parts of unincorporated Marin. New second units can have a maximum floor area of 750 square feet, and they must have two off-street parking spaces and adequate water supply and sanitary services. The units must also meet all setback and lot coverage requirements of the zoning district in which they are located.

The County has zoning regulations similar to other jurisdictions in Marin. As shown in Table 9, all of the setback, lot size, and building height restrictions of a typical zoning district (R1-B1) are within the range of restrictions imposed by other jurisdictions.

---

<sup>38</sup> Density ranges will be determined based on environmental considerations as well as Community Plan and General Plan policies. Zoning density ranges will not entitle property owners to build at the specified levels.

<sup>39</sup> Pursuant to California Government Code Section 65589.5, local jurisdictions are required to make written findings if developers are not allowed to build at the density specified in the zoning ordinance. The following findings must be made: 1) the housing development would have a specific adverse impact upon the public health or safety unless the project is developed at a lower density, and 2) there is no feasible method to mitigate the adverse impact other than development at a lower density.



Table 9

**COMPARISON OF ZONING REQUIREMENTS**  
Selected Jurisdictions in Marin County, 1987

| Jurisdiction | Lot SizeSet Backs<br>Zone Name | Area                    | Width   | Depth | Front  | Rear | Side   | Height      |
|--------------|--------------------------------|-------------------------|---------|-------|--------|------|--------|-------------|
| Marin County | R1:B1                          | Single Family           | 6,000sf | 50ft  | varies | 25ft | Varies | 5ft 35ft    |
| Ross         | R1                             | Single Family           | 5,000sf | 50ft  | 100ft  | 25ft | 40ft   | 15ft 30ft   |
| Novato       | R1:B1                          | Single Family           | 6,000sf | 50ft  | 75ft   | 25ft | 10ft*  | 5-6ft* 30ft |
| San Rafael   | R1                             | Single Family           | 5,000sf | 50ft  | varies | 15ft | 10ft   | 3-5ft* 30ft |
| Mill Valley  | RS-6                           | Single Family           | 6,000sf | 60ft  | varies | 15ft | 15ft   | 5ft 30ft    |
| Fairfax      | RD5.57                         | Residential (1-2 units) | 5,500sf | 60ft  | varies | 6ft* | 6ft*   | 5ft* 35ft   |

Source: Ross General Plan, 1988

### Time Required for Processing Applications

The County reviews residential development projects for compliance with State environmental quality regulations and local regulations which promote, preserve and enhance the public welfare. Many small projects which are subject to environmental review pursuant to the California Environmental Quality Act are often determined to have only minor adverse impacts which can be reduced to a less than significant level or eliminated by mitigations incorporated into the project design. Environmental review for projects which have no significant impacts or which mitigate impacts to less than significance normally takes less than 60 days to accomplish, and is required by law to be completed in no more than 105 days from the time a completed application is submitted to the Planning Department. If the development 1) has potential environmental impacts which are not determined to be mitigated to less than significant levels, or 2) requires further study to determine the significant impacts, appropriate mitigations and/or project alternatives, processing time may take longer depending on the complexity of the project and the scope of impacts, mitigations, and alternatives to be analyzed. State law requires that all development projects be approved or denied within six months from the date a completed application was submitted to the Planning Department if a negative declaration of environmental impact is prepared and processed. Environmental review and action on a development project must occur within one year if the project has significant impacts and an Environmental Impact Report is prepared.

The County has taken some steps to mitigate the time constraints on housing development resulting from environmental review. The Planning Department has prepared an Environmental Review Fact Sheet (Appendix G) which explains the review process in a clear, concise manner so that applicants can get a quick understanding of the process. The County also encourages applicants to get pre-application consultation where developers discuss a development concept with County Planners thereby benefitting from the staff's knowledge of local plans, codes infrastructure availability, and other matters. Finally, the County helps speed up the process by reviewing and taking action on the environmental review concurrent with taking action on the merits of a project.

As with environmental review, time requirements for review of merits of a project are contingent on project complexity and its environmental impacts. If a house design on a lot in a zoning district in either the agricultural or urban zoning districts meets County standards and Uniform Building Codes, a building permit can be granted and no further review would be necessary. Thus, processing times are usually between one and three weeks after the completed application has been submitted. (If an applicant submits an incomplete application, he or she is notified within 30 days after submittal that the application was determined to be incomplete.)

Development on large parcels in planned districts often begins with the submittal and approval of a Master Plan. A Master Plan consists of written and graphic material setting forth a general development scheme. The findings required by review of Master Plans ensure consistency between the project and the goals and policies of the Countywide Plan and Community Plans. Generally, final action is taken by the Board of Supervisors within 10 or 12 weeks from the date when environmental review is completed. Master Plan approval for large or complicated development projects will take longer to process.

Subsequent to obtaining Master Plan approval, residential developments require submittal and approval of Precise Development Plans, setting forth in much greater detail the specific configuration of development on a land subdivision. Final action on Precise Development Plans is usually taken between four and six weeks after the application is determined to be complete. The subdivision of property also requires submittal and approval of both a Tentative and Final Map which primarily serve to locate existing and proposed boundaries of all lots. Tentative Maps are often submitted concurrently with Precise Development Plans. Generally action on a Tentative Map is taken by the Planning Director, Planning Commission, or Board of Supervisors within 50 days after the application is determined to be complete; action on a Final Map is generally taken after



the conditions of project approval imposed on the Tentative Map application by the Planning Department are determined to be fulfilled. After obtaining approval of Precise Development Plans and a Final Map, developers normally apply for Building Permits. Construction may begin after a Building Permit has been secured.

Construction of individual residential units in planned districts normally does not require submittal and approval of Master Plans, Precise Development Plans, Tentative Maps or Final Maps because individual residential construction projects tend to be smaller and less complex. Residential construction projects on individual lots are normally required to submit and obtain approval of Design Review applications before applying for a building permit. With Design Reviews, as with Master Plans, specific findings must be made before projects are approved. The findings required by design review ensure consistency between development and the goals and policies of Community Plans and the Countywide Plan. Most Design Reviews are processed administratively. If a residential project in a planned zoning district will raise significant policy questions, substantial public controversy, or if the application is submitted with another permit application that requires a public hearing, that project may go to a public hearing in front of the Planning Commission.

Work determined by the Planning Director to be minor or incidental and within the intent and objectives of design review may be processed as a design review waiver. Most rehabilitation projects would be processed as design review waivers. Waivers are processed as an administrative action and the review procedure is not as extensive as for design review. Generally, action is taken on a design review or design review waiver application within two to three weeks from the date the application is deemed complete. After the Design Review or Design Review Waiver is approved, a Building Permit is required before construction may begin.

As with environmental review, the Planning Department has taken steps to reduce the time constraints imposed by review of projects in terms of their compliance with Countywide Plan and Community Plan goals and policies. Encouraging pre-application consultation with both Planning Department staff and members of community groups that may have an interest in the project helps developers understand local plans, codes, and other items of importance to planners and community members who may be reviewing the application. Staff and community members may be able to suggest changes in the project to help it meet community objectives, thereby facilitating the review process. The Planning Department has also prepared a number of summary "Fact Sheets" which explain the review process, submittal requirements, and the time frame for processing permits including Design Reviews, Master Plans, Coastal Permits, Variances, and Second Unit Use

Permits. Due to the lack of affordable housing and the fact that permit review can increase the costs of housing construction, there is a need to implement additional programs such as giving priority to processing permits of affordable housing developments, and computerizing environmental, zoning, and permit history data at the parcel level to further reduce the time required for research and review of residential development applications.

### Development Standards

In addition to zoning and subdivision regulations and the policies of the Countywide Plan and Community Plans, the County has established Development Standards which specify standards of improvements and construction for the development of land within unincorporated areas of Marin. Residential roads are required to be of a certain width, driveways must be a certain length, etc. To analyze whether or not the development standards of the County are potential or actual constraints to the development of housing, they were compared with development standards of cities within the county. In each of the areas that were tested, County standards do not appear to be significantly different from other jurisdictions in Marin. For example the County requires the centerline radii of roads to be not less 75 feet on most roads, which is no different from standards in the City of Novato or San Rafael. Likewise, curbing sidewalk, transit facility, street width, and utility standards for the County were not significantly different from those required by the City of Novato or San Rafael. It may in fact be better for Marin to increase the size of its roads so that they meet Federal standards, thereby becoming more eligible for Federal funding of transportation projects<sup>40</sup>.

However, given the lack of affordable housing in Marin, there is a need to consider amending development standards to facilitate development and improvement of housing. For instance, allowing asphalt curbs or the integration of curbs and sidewalks may reduce the costs of residential development, thereby making housing more affordable.

### Permit Review Fees

Since the passage of Proposition 13 (1978), government agencies have increasingly assessed fees to recover the costs of providing services. County permit fees have risen as the costs of reviewing permits and plans have increased. According to the figures in Table 10, the County has the highest permit review fees of any jurisdiction in Marin. The Board of Supervisors has directed the Planning Department to recover 75% of the cost of processing applications.

---

<sup>40</sup> This information was obtained in an interview with Paul Klassen, a senior transportation engineer in the Marin County Department of Public Works, January, 1990.



the conditions of project approval imposed on the Tentative Map application by the Planning Department are determined to be fulfilled. After obtaining approval of Precise Development Plans and a Final Map, developers normally apply for Building Permits. Construction may begin after a Building Permit has been secured.

Construction of individual residential units in planned districts normally does not require submittal and approval of Master Plans, Precise Development Plans, Tentative Maps or Final Maps because individual residential construction projects tend to be smaller and less complex. Residential construction projects on individual lots are normally required to submit and obtain approval of Design Review applications before applying for a building permit. With Design Reviews, as with Master Plans, specific findings must be made before projects are approved. The findings required by design review ensure consistency between development and the goals and policies of Community Plans and the Countywide Plan. Most Design Reviews are processed administratively. If a residential project in a planned zoning district will raise significant policy questions, substantial public controversy, or if the application is submitted with another permit application that requires a public hearing, that project may go to a public hearing in front of the Planning Commission.

Work determined by the Planning Director to be minor or incidental and within the intent and objectives of design review may be processed as a design review waiver. Most rehabilitation projects would be processed as design review waivers. Waivers are processed as an administrative action and the review procedure is not as extensive as for design review. Generally, action is taken on a design review or design review waiver application within two to three weeks from the date the application is deemed complete. After the Design Review or Design Review Waiver is approved, a Building Permit is required before construction may begin.

As with environmental review, the Planning Department has taken steps to reduce the time constraints imposed by review of projects in terms of their compliance with Countywide Plan and Community Plan goals and policies. Encouraging pre-application consultation with both Planning Department staff and members of community groups that may have an interest in the project helps developers understand local plans, codes, and other items of importance to planners and community members who may be reviewing the application. Staff and community members may be able to suggest changes in the project to help it meet community objectives, thereby facilitating the review process. The Planning Department has also prepared a number of summary "Fact Sheets" which explain the review process, submittal requirements, and the time frame for processing permits including Design Reviews, Master Plans, Coastal Permits, Variances, and Second Unit Use

Permits. Due to the lack of affordable housing and the fact that permit review can increase the costs of housing construction, there is a need to implement additional programs such as giving priority to processing permits of affordable housing developments, and computerizing environmental, zoning, and permit history data at the parcel level to further reduce the time required for research and review of residential development applications.

### Development Standards

In addition to zoning and subdivision regulations and the policies of the Countywide Plan and Community Plans, the County has established Development Standards which specify standards of improvements and construction for the development of land within unincorporated areas of Marin. Residential roads are required to be of a certain width, driveways must be a certain length, etc. To analyze whether or not the development standards of the County are potential or actual constraints to the development of housing, they were compared with development standards of cities within the county. In each of the areas that were tested, County standards do not appear to be significantly different from other jurisdictions in Marin. For example the County requires the centerline radii of roads to be not less 75 feet on most roads, which is no different from standards in the City of Novato or San Rafael. Likewise, curbing sidewalk, transit facility, street width, and utility standards for the County were not significantly different from those required by the City of Novato or San Rafael. It may in fact be better for Marin to increase the size of its roads so that they meet Federal standards, thereby becoming more eligible for Federal funding of transportation projects<sup>40</sup>.

However, given the lack of affordable housing in Marin, there is a need to consider amending development standards to facilitate development and improvement of housing. For instance, allowing asphalt curbs or the integration of curbs and sidewalks may reduce the costs of residential development, thereby making housing more affordable.

### Permit Review Fees

Since the passage of Proposition 13 (1978), government agencies have increasingly assessed fees to recover the costs of providing services. County permit fees have risen as the costs of reviewing permits and plans have increased. According to the figures in Table 10, the County has the highest permit review fees of any jurisdiction in Marin. The Board of Supervisors has directed the Planning Department to recover 75% of the cost of processing applications.

---

<sup>40</sup> This information was obtained in an interview with Paul Klassen, a senior transportation engineer in the Marin County Department of Public Works, January, 1990.

Table 10

COMPARISON OF PERMIT REVIEW FEES  
Selected Jurisdictions in Marin County \* 1987

| Jurisdiction | Use Permit | Zoning Amend | Tentative Map | Final Map | Lot Line Adjustment | Initial Study | Variance | Appeal |
|--------------|------------|--------------|---------------|-----------|---------------------|---------------|----------|--------|
| Marin County | \$675      | \$850        | \$2,200       | \$2,420   | \$1,000             | \$140         | \$300    | \$150  |
| Novato       | \$175      | \$550        | \$750         | \$1,100   | \$225               | \$375         | \$165    | \$100  |
| Ross**       | \$300      | \$300        | \$300         | \$500     | \$400               | \$300         | \$100    | \$50   |
| San Rafael   | \$350      | \$350        | \$625         | \$1,550   | \$750               | \$175         | \$225    | \$75   |
| Belvedere    | \$150      | \$150        | \$250         | \$500     | \$0                 | \$150         | \$140    | \$75   |
| Tiburon      | \$200      | \$500        | \$750         | \$1,000   | \$500               | \$250         | \$50 +   | \$250  |
| Mill Valley  | \$425      | \$425        | \$850         | \$975     | \$0                 | \$225         | \$225    | \$50   |
| Larkspur     | \$200      | \$200        | \$250         | \$300     | \$250               | \$100         | \$100    | \$0    |
| Sausalito    | \$300      | \$400        | \$55/hr       | \$700     | \$100               | \$200         | \$300    | \$100  |

\* Fees are generalized to provide a comparison (fees can vary depending on the size of the project, other approvals needed, other department review, etc).

\*\* Fees for the Town of Ross reflect updated fees as of March, 1988

Given that permit review fees can substantially increase the costs of housing, there is a need to implement programs, such as fee waivers for affordable housing projects, to at least partially remove this constraint to the development of housing.

### Building Codes

The State requires each jurisdiction to adopt a set of building code requirements to ensure a minimum level of quality in new construction. Local jurisdictions have the option to either adopt the standards contained in the State Uniform Building Code (UBC), or they may adopt more stringent construction standards. The development of housing may be constrained if the more stringent standards increase the cost of construction, design, materials or labor.

The Marin County Code contains several amendments or changes to the UBC. The modifications that would likely increase construction costs (hence impose the greatest constraint) relate to fire protection. For example, Section 19.04.110 of the Marin County Code (1987) states, "Usable space under the first story shall be separated from the unusable space by walls or partitions and shall be protected on the side of the usable



space as required for one-hour fire-resistive construction..." Although the County's building code requirements may increase construction costs to a degree, the benefit of better fire protection outweighs the marginal increase in construction costs.

### **Building Code Enforcement**

There are typically five inspections performed during the construction of a house in Marin. First, the foundation is inspected after excavations for footings are complete and any required reinforcing is in place. Secondly, the construction is inspected after all in-slab or under-floor building service equipment, conduit, piping accessories, and other ancillary equipment items are in place. The third inspection is done after the roof, all the framing, fire blocking and bracing are in place and all pipes, chimneys, and vents are complete and the rough electrical, plumbing and heating wires, pipes and ducts are approved. Next, the lath and/or gypsum board inspection is performed after all lath and gypsum board, interior and exterior, is in place, but before any plastering is applied or before gypsum board joints and fasteners are taped and finished. Finally, construction is inspected after finished grading and the building is completed and ready for occupancy.

Building inspection of existing units takes place during additional construction or rehabilitation on a unit which requires a building permit. During such inspections, the only portion of the building required to meet current UBC standards is that portion which is being constructed or rehabilitated. (All buildings under construction or rehabilitation must have a fire alarm installed as required by State fire code. However, this does not place a significant financial burden on the property owner.) Since inspections are safeguards to ensure that construction complies with approved plans and State health and safety regulations, County building code enforcement procedures do not significantly constrain the development of housing.

### **Water Supply**

Water is supplied to properties in the county by special districts and private wells. A water supply is required before building permits are issued for new construction. If there is a lack of water supply because of drought or other conditions, special districts which supply water can constrain development within their boundaries by placing moratoriums on the provision of new services. The Bolinas Community Public Utilities District (serving 519 connections) has had a moratorium in effect since 1971, and the moratorium will probably be in effect until the district's storage capacity is expanded. While the Bolinas Community Plan (1985) projects capacity expansion before 1990, these projections were overly optimistic. Capacity expansion has not occurred, and may not take place within the time frame of this Element.



The Marin Municipal Water District (MMWD), which serves 163,000 persons, also has capacity constraints. The current water demand and outstanding water commitments have used up virtually all of MMWD's water supply. In response to this water shortage, a ban on new water hookups was imposed in April, 1989. The District is actively seeking new sources of water. A Water Supply Master Plan was adopted by the District in October 1989 which identified several alternative new water supply sources to meet the projected demand by the year 2025. Two alternative sources include securing a permanent water allocation through the Sonoma County Water Agency or the Yuba County Water Agency. Another alternative is to develop permanent water supplies through the desalination of San Francisco Bay water. A pilot desalination plant operated during the summer months of 1990. The result of this pilot project will be used to assess the feasibility of the desalination alternative. A bond measure to fund implementation of the preferred alternative may be put before the voters in 1992; a water moratorium will probably not be required during the entire five-year planning horizon (1990-1995) if a ballot measure passes.

County government has no jurisdiction over these special districts to require them to remove or mitigate constraints on new development. To increase the supply of affordable units, the County helped encourage MMWD to provide new services to affordable housing projects with a portion of an allocation of water reserved for public health, safety, and welfare. There was an estimated total of 40 acre-feet of water allocated to this reserve; as of December, 1990, nine acre-feet have been allocated to develop a 28-unit affordable housing project in the City of Larkspur, and a 3-unit affordable housing project in Tiburon. Eligible projects must have the following characteristics:

- 1) Eligible for Community Development Block Grant assistance, and;
- 2) Developed for a non-profit agency, and;
- 3) 100% of the units must be:
  - a) for low and moderate income residents, as defined in Sections 50093 and 50079.5 of the State of California Health and Safety Code; and
  - b) restricted to retain affordability for at least 30 years, and;
- 4) At least 30% of the units must be reserved for persons or households defined as low income by the California Health and Safety Code, Section 50079.5; and
- 5) The project must have a commitment of Foundation or public funding.

Additionally, a new program has been proposed to survey potential sites suitable for upzoning to higher density multifamily use, and sites suitable for rezoning from non-residential use to higher density multifamily use. Based on the results of this survey, the program directs the Planning Commission and the Board of Supervisors to consider upzoning or rezoning appropriate sites to increase the number of multifamily units that are likely to be constructed during the time frame of this Element.

Adopted County land use policies recognize the need for additional water supplies. The County has provided technical assistance to MMWD to help develop the Water Supply Master Plan. County staff has analyzed and commented on other District Plans, and will continue to do so.

The County has also implemented numerous water conservation measures to help reduce water supply constraints. Landscaping for the County's Civic Center includes a drought resistant demonstration garden comprised exclusively of native plant species. Landscaping around the Civic Center is irrigated with reclaimed wastewater. Public parks in the County have curtailed water use by installing drip irrigation systems, retrofitting sprinkler heads, and watering based on daily evapotranspiration figures. Furthermore, the County requires water-saving toilets, showerheads, and faucets in all new development within MMWD boundaries. New development in these areas is also required to use drought resistant native vegetation for landscaping.

### **Sanitary Treatment Plant Capacity**

There are two sanitary treatment plants in Marin that are expected to be at capacity by the year 1991. The Novato Sanitary District (6.7 million gallons per day (MGD) capacity), and Sanitary District #5 (0.98 MGD capacity) are both expected to be at capacity by the year 1991. If additional capacity is not provided, development in areas served by these treatment plants could be constrained if moratoriums were placed on new sewer hookups. However, there is no potential residential development in unincorporated areas served by these districts, so there will be no impact of sewer capacity constraints on the development of housing in unincorporated Marin. The County should encourage these treatment plants with moratoriums in effect to provide services to affordable projects in cities (as described in the previous section, "Water Supply").

The Marin Municipal Water District (MMWD), which serves 163,000 persons, also has capacity constraints. The current water demand and outstanding water commitments have used up virtually all of MMWD's water supply. In response to this water shortage, a ban on new water hookups was imposed in April, 1989. The District is actively seeking new sources of water. A Water Supply Master Plan was adopted by the District in October 1989 which identified several alternative new water supply sources to meet the projected demand by the year 2025. Two alternative sources include securing a permanent water allocation through the Sonoma County Water Agency or the Yuba County Water Agency. Another alternative is to develop permanent water supplies through the desalination of San Francisco Bay water. A pilot desalination plant operated during the summer months of 1990. The result of this pilot project will be used to assess the feasibility of the desalination alternative. A bond measure to fund implementation of the preferred alternative may be put before the voters in 1992; a water moratorium will probably not be required during the entire five-year planning horizon (1990-1995) if a ballot measure passes.

County government has no jurisdiction over these special districts to require them to remove or mitigate constraints on new development. To increase the supply of affordable units, the County helped encourage MMWD to provide new services to affordable housing projects with a portion of an allocation of water reserved for public health, safety, and welfare. There was an estimated total of 40 acre-feet of water allocated to this reserve; as of December, 1990, nine acre-feet have been allocated to develop a 28-unit affordable housing project in the City of Larkspur, and a 3-unit affordable housing project in Tiburon. Eligible projects must have the following characteristics:

- 1) Eligible for Community Development Block Grant assistance, and;
- 2) Developed for a non-profit agency, and;
- 3) 100% of the units must be:
  - a) for low and moderate income residents, as defined in Sections 50093 and 50079.5 of the State of California Health and Safety Code; and
  - b) restricted to retain affordability for at least 30 years, and;
- 4) At least 30% of the units must be reserved for persons or households defined as low income by the California Health and Safety Code, Section 50079.5; and
- 5) The project must have a commitment of Foundation or public funding.



Additionally, a new program has been proposed to survey potential sites suitable for upzoning to higher density multifamily use, and sites suitable for rezoning from non-residential use to higher density multifamily use. Based on the results of this survey, the program directs the Planning Commission and the Board of Supervisors to consider upzoning or rezoning appropriate sites to increase the number of multifamily units that are likely to be constructed during the time frame of this Element.

Adopted County land use policies recognize the need for additional water supplies. The County has provided technical assistance to MMWD to help develop the Water Supply Master Plan. County staff has analyzed and commented on other District Plans, and will continue to do so.

The County has also implemented numerous water conservation measures to help reduce water supply constraints. Landscaping for the County's Civic Center includes a drought resistant demonstration garden comprised exclusively of native plant species. Landscaping around the Civic Center is irrigated with reclaimed wastewater. Public parks in the County have curtailed water use by installing drip irrigation systems, retrofitting sprinkler heads, and watering based on daily evapotranspiration figures. Furthermore, the County requires water-saving toilets, showerheads, and faucets in all new development within MMWD boundaries. New development in these areas is also required to use drought resistant native vegetation for landscaping.

#### **Sanitary Treatment Plant Capacity**

There are two sanitary treatment plants in Marin that are expected to be at capacity by the year 1991. The Novato Sanitary District (6.7 million gallons per day (MGD) capacity), and Sanitary District #5 (0.98 MGD capacity) are both expected to be at capacity by the year 1991. If additional capacity is not provided, development in areas served by these treatment plants could be constrained if moratoriums were placed on new sewer hookups. However, there is no potential residential development in unincorporated areas served by these districts, so there will be no impact of sewer capacity constraints on the development of housing in unincorporated Marin. The County should encourage these treatment plants with moratoriums in effect to provide services to affordable projects in cities (as described in the previous section, "Water Supply").



**Article 34 and Other Ballot Measures**

Part of the State Constitution, Article 34 requires that housing projects sponsored by a public body be approved by a majority of the residents in the jurisdiction. Unpopularity of publicly-sponsored projects may result in their being denied via Article 34 referendum. In Marin, several senior housing projects and other affordable housing projects have been placed on local ballots according to the provisions of Article 34; all of these projects were approved.

Another constraint to the development of affordable housing is through a more general ballot initiative process. Measures can be placed on local ballots which allow voters to effectively deny approval of affordable housing projects. For instance, in 1985, voters in Corte Madera approved an initiative which scaled down the size of an affordable housing project to the point that it was not cost-effective for the non-profit developers to build.

**Market Constraints****Expensive Land**

The relative scarcity of buildable parcels, especially in southern Marin, coupled with the high demand for sites has driven prices to very high levels. According to statistics collected by the Marin County Planning Department, lots zoned for single family development cost an average \$113,750 per potential unit between 1987 and 1989, while multifamily lots sold for \$92,300 per potential unit. With funds from Community Development Block Grants and a housing trust fund (using in-lieu fees collected as a result of the inclusionary zoning ordinance), the County is reducing costs of land acquisition for some lower income households; these programs should be maintained or expanded. There is also a need to make surplus public land available for affordable housing development.

**Expensive Site Preparation**

As buildable sites become increasingly scarce in Marin, site preparation costs rise dramatically. Remaining parcels tend to have a higher number of physical constraints, such as steep and unstable slopes which are often expensive to mitigate. Appendix C contains an inventory of the cost of construction of a typical two-bedroom house.

**Availability of Financing**

In order to qualify for a mortgage loan, an applicant must be able to prove a degree of financial stability. Generally as the amount of mortgages increase, the more proof lending institutions require. In October 1989, representatives from a number of banks in Marin as well as community leaders were interviewed to assess whether or not the requirements of lending institutions are an actual or potential constraint to the development of housing. It was found that mortgage loans and rehabilitation loans are generally available, and if there are mortgage deficient areas in the county, it is not due to discriminatory practices by mortgage lenders, but rather the financial capabilities of individuals. Households qualifying for mortgages are generally able to obtain them. In response to high housing costs, some lenders were providing mortgages of 95% of the value of the house in 1989, a significantly higher percentage than normally allowed (80%).

**Filtering Up**

Filtering up is the term which describes the process of increasingly affluent families occupying a house during its usable life. Traditionally, as a family's income rises, the family chooses to move to a more expensive house, selling their existing house to a less affluent family (assuming a used house does not command as high a price as a new one).

Marin, on the other hand, has such a high demand for housing that households are willing to pay increasingly higher prices to live here. Typically, a house in Marin is sold to a household whose income is higher than that of the existing resident. A Marin house "filters up" to ever more affluent families during its usable life.

## OBJECTIVES, POLICIES AND PROGRAMS

Marin's housing objectives, policies and programs are designed to meet the needs of the general population as well as groups with special needs. In the following section, specific policies and programs are described which have addressed and will continue to address these needs. The overall housing objectives of the County are given in general terms, followed by policies that specify the direction of the County's housing programs. These programs include land use and development controls, regulatory concessions and incentives, and Federal and State financing opportunities. When appropriate, listed with each program is the agency responsible for implementation, the date of implementation, and the number of units which are projected to be developed through the program.

When the impact of a program is projected into the future, it is necessary to make some assumptions about future conditions. For example, the County assumes that a given Federal housing program will continue to be funded at current levels, unless stated otherwise. Assumptions are given for each program to which they apply.

Although the Housing Element contains information about the entire county, the County Government has jurisdiction only over unincorporated areas. Therefore, the policies, and programs in this Element will apply only to unincorporated parts of Marin. Each city will specify its policies and programs in its Housing Element.

### Objective H-1.

#### Affordable Housing

To encourage the preservation of existing affordable housing and the development of new affordable housing.

### Policy H-1.1.

#### Maintain Ordinances Which Encourage Affordable Housing Development.

Through public education and participation at public hearings on amendments to the Zoning Ordinance and General Plan, the County shall support the maintenance and strengthening of Ordinances which encourage the development of affordable housing.

Program H-1.1 a. **Inclusionary Units.** The County requires that 10% of the total number of units of all new developments containing 10 or more units shall be affordable by households of low or moderate income. The County's primary intent is the construction of units on-site. If that is not practical, the County will allow other alternatives of equal value such as in-lieu fees and construction of units offsite. Responsible Agencies: Marin County Planning Department, Marin County Department of Public Works.



- Program H-1.1 b. **Inclusionary Lots.** The County requires that 10% of the total number of developable lots of all new subdivisions of 10 or more lots shall be made available for the production of affordable housing. The County's primary intent is the construction of units on-site. If that is not practical, the County will allow other alternatives of equal value such as in-lieu fees and construction of units offsite. Responsible Agencies: Marin County Planning Department, Marin County Department of Public Works.
- Program H-1.1 c. **Allocation of In-Lieu Fees.** The County shall continue to allocate in-lieu fees to maximize the development and conservation of affordable housing countywide. The County allocated \$90,000 in 1988 to assist the construction of 11 affordable senior housing units in Belvedere. The County allocated \$600,000 in 1989 to develop or conserve 40 affordable units in Larkspur, 86 affordable units in Novato, 92 affordable units in San Rafael, and 72 affordable units in unincorporated areas. The Board of Supervisors allocated an additional \$416,500 in 1990 to assist various types of housing projects countywide. These projects include Buckelew/Lakeside House, a group home for six adults; 4 affordable units in Bolinas; Ecology House, an 11 unit affordable housing project; Palm Lane Mobile Home Park; and the Rental Deposit Guarantee Program, which is designed to help prevent homelessness.
- Program H-1.1 d. **Second Units.** Using precise criteria and assuming neighborhood acceptance, the County permits second units in selected single-family areas with an emphasis on meeting the needs of low and moderate income housing. Responsible Agencies: Marin County Planning Department, Marin County Department of Public Works.
- Program H-1.1 e **Second Unit Rental Rate Survey.** The County should survey the range of rents of existing second units. The County should also revise the application form for second unit use permits to ask the applicant to state the range of rents to be charged for all new second units and legalization of existing second units.



Policy H-1.2      Develop New Ordinances Which Encourage Affordable Housing Production.

At every feasible opportunity, the County should develop new zoning provisions which encourage the development of affordable housing.

- Program H-1.2 a.    **Mixed Commercial Uses.** The County shall survey potential constraints and mitigation measures to allowing development of affordable housing on top of existing commercial buildings. Planning Department staff will conduct interviews of staff members in the other departments responsible for processing residential applications and developers between January 1, and February 28, 1991. Before March 31, 1991, Planning Department staff will write a memo to the Planning Commission and the Board of Supervisors discussing the results of the interviews and detailing a work program to implement measures which will mitigate existing constraints and otherwise encourage development of such housing.
- Program H-1.2 b.    **Housing Mitigation Fees.** Before June, 1991, Planning Department staff shall present and make recommendations to the Planning Commission and the Board of Supervisors on zoning ordinance amendments which would require developers of commercial/business property to make a financial contribution for the development of housing affordable to prospective employees.
- Program H-1.2 c.    **Housing Opportunity Areas.** The maximum floor area ratio (FAR) for historic legal lots which do not meet current minimum lot size requirements is 0.3 (30%). Variances to the aforementioned maximum FAR to permit larger houses to be constructed shall be discouraged.
- Program H-1.2 d.    **Rental Housing Zoning Districts.** The County should consider establishing zoning districts which encourage the development of rental units.

Program H-1.2 e. **Affordable Multifamily Housing.** Planning Department staff shall initiate public hearings by January 1, 1992 with the Planning Commission recommending rezoning of selected areas to higher density multifamily housing. Recommendations shall include rezoning parcels to allow the construction of 13 units at a density of 24 units per acre, and 22 units at a density of 30 units per acre. The quantified objective of this program is to rezone sites to allow the construction of 13 low income units at a density of 24 units per acre, and 22 very low income units at a density of 30 units per acre.

Policy H-1.3                      **Redevelopment Assistance.**

The County's Redevelopment Agency shall continue to provide technical assistance to organizations involved in the redevelopment of the Marin City Redevelopment Area. The Redevelopment Agency shall continue to use its authority to issue bonds, establish special tax assessment districts, and use tax increment funds and other loans and grants to provide financial assistance to projects in the Redevelopment Area. Quantified Objective: 127 very low income units, 9 low income units, and 16 moderate income units.

Policy H-1.4                      **Utilize Housing Assistance Programs.**

The County Housing Authority, Community Development Block Grant, and Planning staff should continue to make use of Federal, State, and local mortgage assistance, rehabilitation loan subsidy, and rental assistance programs.

Program H-1.4 a. **Mortgage Assistance.** Five-year (1990-1995) targets for the on-going mortgage assistance programs in the unincorporated portion of the County include:

**Community Development Block Grants.**

Administered by the Marin County Planning Department, this federally funded set of programs will continue to be a major contributor to affordable housing development in Marin. Quantified objectives are: eight units will receive site acquisition assistance, 25 units will receive building acquisition assistance, and 100 units will receive feasibility study and predevelopment cost assistance. This assumes that the 1984-1989 distribution of recipients will continue.

Program H-1.4 b. **Rental Assistance.** Five-year (1990-1995) targets for the on-going rental assistance programs in the unincorporated portion of the county include:

1) **Section 8 Rental Assistance.**

This program which is administered by the Marin County Housing Authority, subsidizes rental payments for lower income households in units with rents which fall within a specified range. Quantified objectives of this program are: 34 households will continue to receive assistance. This assumes that the 1984-1989 distribution of recipients will continue.

2) **Project Independence.**

This program, also administered by the Marin County Housing Authority, is a Section 8 Rental Assistance Program for persons who are physically, emotionally, or developmentally disabled. Quantified objectives for this program are: two households will continue to receive assistance. This assumes that the 1984-1989 distribution of recipients will continue.

3) **Voucher Housing Assistance Payments Program.**

This program provides rental assistance to lower income households. It is administered by the Marin County Housing Authority. Quantified objectives are: nine units will continue to receive funding and one additional unit is expected to receive funding. This assumes that the 1984-1989 distribution of recipients will continue.

4) **Rental Deposit Guarantee Program**

With funds generated through the Inclusionary Zoning Ordinance, the County Planning Department shall favorably consider a program guaranteeing security deposits of low and very low income households. Quantified objectives are 26 low income units and 26 very low income units including two very low income units for seniors and one unit for a large family.



Program H-1.4 c. **New Construction.** Five-year (1990-1995) targets for on-going programs which apply to the construction of new units in the unincorporated portion of the county include:

1) Inclusionary Ordinance.

This program is administered by the Marin County Planning Department. Quantified objectives for the program are: 34 units, and \$1,250,000 of in lieu housing fees. This projection assumes the level of construction activity will be similar to the period between 1984 and 1989.

2) Second Unit Ordinance.

Administered by the Marin County Planning Department, the quantified objectives of this program are 86 additional units. This projection assumes that the same number of second-units will be constructed in the next five years as were approved in the previous five years.

3) Double Unit Opportunity Program.

This program, administered by the Marin County Housing Authority, provides assistance in the construction of second units. Quantified objectives are two units. This projection assumes that the 1984-1989 distribution of recipients across Marin will continue.

4) Section 202 Construction Loans.

This program provides direct loans to non-profit organizations such as the Ecumenical Association for Housing for the construction of affordable units. The County has participated in this program by making surplus public land available at below market rates, and processing applications within the time constraints established by the U.S. Department of Housing and Urban Development. Quantified objectives for this program are 25 units. This projection assumes that the distribution of the 300 additional units which are expected to receive funding will reflect 1984-1989 trends.



Program H-1.4 d. **Rehabilitation Assistance.** Five-year (1990-1995) targets for on-going and new rehabilitation assistance programs include:

1) Residential Rehabilitation Loan Program.

This program provides technical assistance and low interest loans to qualified homeowners to rehabilitate substandard housing. It is administered by the Marin County Housing Authority, and the quantified objectives are 60 units in the unincorporated part of the county. This assumes that the distribution of the 150 additional units will reflect 1984-1989 trends.

2) Public Housing Modernization.

This program, administered by the Marin County Housing Authority, provides rehabilitation funds for housing owned by the Housing Authority. Quantified objectives are: \$200,000 will be used to rehabilitate 20 existing units in the unincorporated portion of the county. This projection assumes the distribution of recipients will be similar to the period between 1984 and 1989.

3) Home Equity Conversion.

This program is administered by the Family Services Agency. It provides funds to elderly persons based on the value of their home. Quantified objectives are six to 12 units per year. This projection assumes a slightly increasing number of elderly households participating in the program each year.

4) Energy Conservation.

PG&E and the Marin Citizens for Energy Planning administer a variety of energy conservation programs including weatherization of lower income units. Quantified objectives for this program are 270 units. This projection assumes the distribution of recipients will reflect 1984-1989 trends.

Program H-1.4 e. **New State and Federal Programs.** The Housing Authority is following new State and Federal housing programs such as the Deferred Payment Rehabilitation Program which will provide low interest loans for rehabilitation of affordable housing. The County will apply for these funds as they become available.

Program H-1.4 f. **Conservation of Existing Affordable Units.** The County implemented a number of programs prior to the 1984 Element which provided affordable housing throughout the 1984-1989 time period including the Mortgage Revenue Bond, Public Housing Modernization and Section 202 programs. It was estimated that the County maintained the affordability of 672 units between 1984 and 1989. It is further projected that 1,131 affordable units will be conserved between 1990 and 1995.

Program H-1.4 g. **Private Funding.** The County shall continue to coordinate its resources with private funds for the development of affordable housing, such as those administered by the Marin Community Foundation.

Policy H-1.5

**Condominium Conversion.**

Except for limited equity cooperatives and other innovative housing which is affordable to low and moderate-income persons, the County prohibits the conversion of apartment units to condominiums when a housing emergency exists. A housing emergency exists if there is a countywide vacancy rate of 5% or lower, and less than 25% of the total housing stock is multifamily rental units. When no housing emergency exists, conversions may be allowed if the following provisions are made: 1) units for low and moderate income households are provided, 2) converted units are upgraded to current UBC standards, and 3) adequate notification and relocation assistance are provided by the developer to existing tenants. Approximately 195 rental units have been conserved between 1984 and 1989; a projected 195 rental units will be conserved between 1990 and 1995<sup>41</sup>.

---

<sup>41</sup> The number of units conserved through this program was assumed to be the same number of multifamily units that have been constructed between 1984 and 1989. It was further assumed that the same number of units would be conserved between 1990 and 1995 as between 1984-1989.

Policy H-1.6.Office Conversion.

Before June 1, 1991, Planning Department staff shall research the extent of the loss of housing due to the conversion of units from residential to commercial use. If necessary, the Planning Department may recommend that the Planning Commission and Board of Supervisors implement programs to mitigate the loss of housing due to office conversion.

Policy H-1.7Shared Housing.

The County shall encourage the provision of housing for low and moderate income households through shared and cooperative living arrangements.

## Program H-1.7 a.

**Encourage and Coordinate with Existing House Sharing Programs.**

The County shall support programs to facilitate house sharing in new and existing units. Before June 1, 1991, Planning Department staff shall review applications by non-profit groups sponsoring house sharing programs for funding through the County's Housing Trust Fund.

## Program H-1.7 b.

**Encourage the Construction of Shared Housing Units.** The County shall support the construction of new shared housing units.

## Program H-1.7 c.

**Encourage Cohousing/Village Cluster Developments.** The County shall encourage cohousing/village cluster developments in Residential Multiple Planned Districts.

Policy H-1.8.Mobile Homes.

The County shall continue to preserve existing affordable mobile home parks by supporting with funding and technical assistance the floodproofing of the Palm Lane mobile home park in order to conserve the existing affordable housing. Before June 1, 1992, Planning Department staff shall inventory and identify sites that may be appropriate for the development of new mobile home parks.

Policy H-1.9.Density Bonus.

Before January 1, 1991, Planning Department staff shall present and make recommendations to the Planning Commission and the Board of Supervisors on a draft zoning amendment to grant a 25% density bonus over the otherwise maximum allowable density for housing developments of 5 or more units which provide: 1) 20% of total units for lower income households, or 2) 10% of the total units for very-low income households, or 3) 50% of the total units for seniors. In addition, staff shall work with non-profit and market rate developers to determine what other incentives are needed to encourage the provision of affordable units under the density bonus program. Where feasible, Housing Element policies and/or the zoning ordinance shall be amended to provide the incentives deemed necessary to encourage the provision of affordable units under the density bonus program.

Policy H-1.10Waiver of Permit Fees.

The County shall waive all planning fees for that portion of a project that provides housing which is affordable to low or moderate income households. Responsible Agency: Marin County Planning Department.

Policy H-1.11.Expedite Permit Review.

Before June 1, 1991, the County Planning Department shall designate staff to expedite processing of permit applications for housing projects which provide at least 50% of the units affordable to moderate income and below moderate income households.

Policy H-1.12.Consider Amending Development Standards.

Before January, 1992, County Planning staff will meet with County Public Works Department staff to consider amending Development Standards which unnecessarily contribute to the cost of housing development. Where Development Standards are found to contribute to the cost of residential development unnecessarily, County Planning staff shall recommend to the Planning Commission appropriate amendments which will reduce the cost of housing development.



Policy H-1.13.Assistance to Non-Profits.

The County shall continue to provide financial and technical assistance to non-profit groups organized to encourage the provision of affordable housing. Assistance shall include providing notices of zoning ordinance and general plan amendments; on request, providing copies of the county's semiannual inventory of proposed development in paper form or on computer diskette free of charge; processing development permits within the time constraints of Federal and State funding requirements; and offering surplus public land for sale or lease to non-profit housing organizations for the production of affordable housing at below market rates. The County shall also continue to allocate existing financial assistance programs to non-profit housing developers including Housing Trust funds and Community Development Block Grants. The County will also explore any new funding sources.

Policy H-1.14.Density Ranges.

Before July 1, 1991, Planning Department staff shall present and make recommendations to the Planning Commission and the Board of Supervisors on amendments to the zoning ordinance establishing density ranges in all Residential and Residential/Agricultural Planned zoning districts. The standards establishing a density range will be based on review of specific areas. Staff will survey the properties within Residential Planned zoning districts, and recommend a list of candidate properties to be included in each category of minimum and maximum density ranges.

Policy H-1.15.Surplus Public Land.

Before December 1, 1991, County Planning Department staff shall inventory public vacant land and currently utilized public sites that may be better used for affordable housing or offer a shared use. Planning department staff shall determine the development potential on each parcel, and survey existing and projected uses on those parcels which may have value for affordable housing development. A report and recommendations will be presented to the Planning Commission and Board of Supervisors based on the findings of this research before January 1, 1992.

Policy H-1.16Affordable Housing Sites.

Before April 1991, Planning Department staff shall survey vacant parcels in the unincorporated area of the county and provide non-profit developers with a list of sites that may be appropriate for affordable housing development.

Policy H-1.17.Encourage Housing for Special Populations.

The County shall encourage programs which respond to the special housing needs of female-headed households, large families, the elderly, the handicapped, farm workers and the homeless.

Program H-1.17 a. **Wheelchair Ramps and Elevators.** Before June 1, 1991, the County Planning Department shall present and make recommendations to the Planning Commission and the Board of Supervisors on an amendment to Chapter 22.72 of the Marin County Code to increase accessibility of units by permitting well designed wheelchair ramps and elevators to be extended into the front yard to within three feet of the property line.

Program H-1.17 b. **Compliance with Accessibility Regulations.** The County will continue to comply with State regulations regarding handicapped access to commercial, apartment, and public buildings. Responsible Agency: Marin County Department of Public Works.

Program H-1.17 c. **Parking Space Requirements for Senior Housing Projects.** Before January 1, 1991, the County Planning Department shall present and make recommendations to the Planning Commission and the Board of Supervisors on an amendment to Chapter 24.04 of the Marin County Code to permit flexibility for reducing parking space requirements for senior housing projects which provide 100% of the units affordable to low income households.

- Program H-1.17 d. **Neighborhood-Based Group Residences.** The County shall encourage the use of existing housing for neighborhood-based group residences for special need groups. Before January 1, 1991, County Planning Department staff shall present and make recommendations to the Planning Commission and the Board of Supervisors on draft ordinance amendments which would allow group homes of six or more persons in residential areas without securing a use permit. This staff report will include a discussion of possible alternative means to regulate the use of group homes, including the Design Review process. Quantified objectives are 44 additional beds in group homes for handicapped persons.
- Program H-1.17 e. **Emergency Shelter and Transitional Housing Sites.** Before January 1, 1991, County Planning Department staff shall present and make recommendations to the Planning Commission and the Board of Supervisors on draft ordinance amendments which would explicitly allow the siting of emergency shelters of six or more persons in Multifamily Residence and Multifamily Planned Districts without securing of a use permit.
- Program H-1.17 f. **Permanent Emergency Shelter.** The County shall continue to support efforts to establish a permanent replacement for the temporary emergency shelter at the armory by considering funding for the development of emergency shelters as a high priority for the use of the County's Housing Trust Fund when applications for funding are reviewed.
- Program H-1.17 g. **Equal Opportunity.** The County shall promote equal opportunity in the housing market for all persons regardless of race, color, religion, sex, age, marital status, presence of children in the household, sexual orientation, handicap, ancestry or other arbitrary factors. Responsible Agency Marin Housing Center.
- Program H-1.17 h. **Resolve Discrimination Cases.** The County shall continue to fund the Fair Housing Program to act promptly to resolve cases of alleged discrimination. Responsible Agency: Marin County Board of Supervisors.



Program H-1.17 i. **Enforcement of the Discrimination Ordinance.** The County shall actively enforce its Discrimination Ordinance prohibiting age discrimination and discrimination against families with children in rental housing.

Program H-1.17 j. **Hypersensitivity.** County Planning Department staff shall present to the Planning Commission and the Board of Supervisors a work program and budget before June 1, 1991 to 1) survey potential sites appropriate for developing housing suitable for hypersensitive persons, 2) review the compatibility between building materials suitable for these persons and State health and safety standards, and 3) make recommendations to the Planning Commission and Board of Supervisors based on the findings of the research.

OBJECTIVE H-2.      Accessibility to Health and Social Services.

To make housing more accessible to health and social services.

Policy H-2.1      Encourage Accessibility to Health and Social Services.

Encourage housing for seniors, single parent households, and handicapped persons to be more accessible to health and social services such as medical clinics and child care facilities.

Program H-2.1 a. **Encourage Accessible Developments.** The County shall encourage housing which incorporates on-site or shared health and social services appropriate to the needs of residents. Services shall include medical clinics and child care facilities.

OBJECTIVE H-3.      Leadership Role.

To provide an active leadership role in helping to attain the objectives of the County's Housing Element.

Policy H-3.1.      Implementation of Measures.

Implement the measures prescribed in the Housing Element in a timely manner.

Program H-3.1 a. **Staffing Levels.** The County shall maintain adequate Planning and Building Inspection staff levels to process required permits on a timely basis. Responsible Agencies: Marin County Board of Supervisors, Marin County Planning Department, Marin County Department of Public Works.



Program H-3.1 b. **Cooperation with Private Industry.** The County shall work informally with the building and real estate industry to draft programs for providing affordable housing to be including in the 1995 revision of the County's Housing Element.

OBJECTIVE H-4.      **Accessibility to Transit Systems**

To encourage housing which is more accessible to transit systems.

Policy H-4.1.      **Accessibility of Housing to Transit Systems.**

The County shall increase accessibility of housing to transit along major transportation routes. Affordable housing with higher densities and mixed use should be encouraged within walking distance of transit systems.

Program H-4.1 a. **Subdivision Access.** Before June 1, 1991, County Planning Department staff shall present and make recommendations to the Planning Commission and Board of Supervisors which would amend Chapter 24.04 of the Marin County Code to require developers to provide easy, safe and direct pedestrian access between residential subdivisions and transit stops.

OBJECTIVE H-5.

Energy Conservation.

To achieve a beneficial reduction in energy used in houses.

Policy H-5.1.

Solar Access.

The County Planning Department shall encourage the placement, orientation and design of all new housing to provide solar access in the Design Review and Master Plan review process by publishing a Solar Access Fact Sheet before January 1, 1992, and distributing the Fact Sheet to applicants.

Policy H-5.2.

Solar Design.

The County Planning Department shall encourage passive solar design and energy conservation measures in new housing developments by publishing a Solar Design Fact Sheet before January 1, 1992, and distributing the Fact Sheet to applicants.

Policy H-5.3.

Energy Conservation.

The County shall encourage energy conservation in existing housing by publishing an Energy Conservation Fact Sheet before January 1, 1992, and distributing the Fact Sheet to applicants.



## APPENDIX A





## AN EVALUATION OF THE 1984 HOUSING ELEMENT

This section reviews the 1984 Housing Element in terms of achieving the State housing goal. The State goal is to expand housing opportunities and accommodate the housing needs of Californians of all economic levels. The 1984 Marin County Housing Element addressed this goal directly in the "Housing Objectives" section which contained quantified objectives for a number of housing programs. Following is a comparison between the quantified objectives of the 1984 Element and what was actually achieved by the various programs. The reasons for any discrepancy between the original objective and actual performance are also given.

Evaluation of the 1984 Housing Element leads to the conclusion that, with the exception of rehabilitation programs, the County has been highly successful in meeting its quantified housing objectives. The County has met a large portion of the quantified objectives for new construction programs specified in the 1984 Element. The 1984 Element projected a maximum of 355 new units constructed with the assistance of local, State and Federal programs; 332 units were actually built. The County exceeded the quantified objectives for rental assistance recipients. A maximum of 42 households were projected to receive rental assistance, while 125 households received such assistance.

The County was less successful in meeting its objectives for rehabilitating existing units; only 356 out of a projected maximum of 1,450 units were rehabilitated. The shortfall can be attributed to two factors: 1) a lack of knowledge of the requirements of the Public Housing Modernization Program, and 2) the inability to secure private funding for the Housewarming Project.

The 1984 Housing Element also listed a number of general policies relating to such areas as land use, social and economic diversity, energy, and accessibility. Where specific programs existed, the County was successful in implementing the policies listed. For example, the County partially funded the Fair Housing Program which provided equal opportunity information and counseling. The County also encouraged the construction of Second Units, and prohibited the conversion of apartments into condominiums.

However, the majority of the policies listed in the 1984 Element did not have significant results because they were not tied to specific programs. For instance, commercial and high-density residential development has not been concentrated in high-intensity, transit-accessible nodes because there was no program directed at amending zoning ordinances to allow such concentrations. Likewise there was no specific program to encourage the development of new housing accessible to the physically handicapped.

The revised Housing Element attempts to strengthen its policies by tying them to specific programs. For instance, to make more housing accessible to physically handicapped

persons, there is a program to consider amending Chapter 22.72 of the Marin County Code to permit well designed wheelchair ramps and elevators to be extended into the front yard to within three feet of the property line (Program H-1.12 a).

Table A1

EVALUATION OF 1984 QUANTIFIED OBJECTIVES  
Marin County Unincorporated Area

| Program                           | Objective | Actual Performance       | Comments                                                                             |
|-----------------------------------|-----------|--------------------------|--------------------------------------------------------------------------------------|
| <u>New Construction</u>           |           |                          |                                                                                      |
| Inclusionary Ordinance            | 100 units | 34 units,<br>\$1,250,000 | Overestimated construction activity                                                  |
| Second Unit Ordinance             | 50 units  | 86 units                 | Underestimated approval ratio                                                        |
| Section 202 Loans                 | 50 units  | 25 units                 | Overestimated percentage of units in unincorporated areas                            |
| Community Development Block Grant | 100 units | 133 units                | Underestimated percentage of units in unincorporated county                          |
| Construction Bonds                | 30 units  | none                     | Overestimated percentage of units in unincorporated county.                          |
| Mortgage Revenue Bonds            | 25 units  | 15 units                 | This program is gradually being replaced by the Mortgage Credit Certificates Program |

| Program                             | Objective  | Actual<br>Performance | Comments                                                                       |
|-------------------------------------|------------|-----------------------|--------------------------------------------------------------------------------|
| <u>New Construction (continued)</u> |            |                       |                                                                                |
| Mortgage Credit<br>Certificates     | 0 units    | 24 units              | This program did<br>not exist in 1984                                          |
| Double Unit<br>Opportunity          | 0 units    | 25 units              | Program was not<br>available in 1984                                           |
| Private<br>Construction             | 1500 units | 500 units             | Overestimated<br>construction<br>activity                                      |
| <u>Rental Assistance</u>            |            |                       |                                                                                |
| Section 8                           | 42 units   | 34 units              | Overestimated<br>percentage of<br>recipients in<br>unincorporated<br>county    |
| Voucher Housing<br>Payments         | 0 units    | 9 units               | This program did<br>not exist in 1984                                          |
| Project Independence                | 0 units    | 2 units               | Underestimated<br>percentage of<br>recipients in<br>unincorporated<br>county   |
| Rebate for<br>Marin Renters         | unknown    | 38 units              | Amount of funding<br>was not certain in<br>1984                                |
| <u>Rehabilitation Assistance</u>    |            |                       |                                                                                |
| Residential<br>Rehabilitation Loan  | 150 units  | 60 units              | Overestimated<br>percentage of<br>recipients in<br>unincorporated<br>county    |
| Public Housing<br>Modernization     | 500 units  | 20 units              | Overestimated<br>number of eligible<br>projects in<br>unincorporated<br>county |



| Program                                      | Objective | Actual<br>Performance | Comments                                                |
|----------------------------------------------|-----------|-----------------------|---------------------------------------------------------|
| <u>Rehabilitation Assistance</u> (continued) |           |                       |                                                         |
| Home Equity<br>Conversion                    | 0 units   | 6 units               | Program was not<br>in 1984 Element                      |
| Housewarming Project                         | 600 units | 0 units               | Private funding<br>was not obtained<br>for this program |
| Home Weatherization                          | 200 units | 270 units             | New programs<br>were used.                              |

## APPENDIX B



## PUBLIC PARTICIPATION

In an effort to involve all segments of the community in the preparation of the Housing Element, the County Planning Department has received comments from the public concerning the Housing Element at several different times. Comments were first solicited on the Draft Housing Element through a series of informal interviews conducted in February and March, 1989. A number of housing-related non-profit groups in the county were interviewed, including Ecumenical Association for Housing, Marin Center for Independent Living, the Housing Center, and Innovative Housing. In addition, interviews were conducted with Marin Builders Exchange staff, and staff of the Marin County Board of Realtors. Topics that were discussed during these interviews were specific to the area of interest to each organization.

On May 15, 1989, the Draft Housing Element was presented to the Joint Committee on the Countywide Plan for their comments. This is a group comprised of civic leaders and concerned citizens including the Marin Conservation League, the Environmental Forum, and the League of Women Voters. Representatives from Ecumenical Association for Housing were also invited to participate in this meeting. On May 27, 1989, the Draft Element was reviewed by the Countywide Plan Advisory Committee, an appointed body composed of elected officials from the 11 cities and towns in the county and one from the County Board of Supervisors. Courtesy notices of this public hearing were mailed to a large number of organizations and individuals interested in housing issues. In addition, copies of the revised Housing Element were handed out to interested persons at this meeting.

In June, the Element was sent to the State Department of Housing and Community Development (HCD) to be reviewed as required by State law. During that 45 day review period, the Element was presented to the Committee on Affordable Housing of the Marin County Board of Realtors. In August, a written response was made to the comments and suggestions of the Committee.

Since then, copies of the revised Element have been mailed to housing project sponsors, housing advocates, housing developers, and other groups and individuals involved in housing issues, and has been available at the Marin County Planning Department. On March 29, the revised Element was submitted to HCD a second time for their review. A public hearing was held by the Marin County Planning Commission on April 23, 1990 to discuss the draft Element. Courtesy notices of this public hearing were mailed to a large number of organizations and individuals interested in housing issues. The meeting was also noticed in the Independent Journal, a local newspaper with a large circulation. Another public hearing will be held by the Marin County Planning Commission on June 4, 1990 to discuss the draft Element. At least one public hearing will be held by the Marin County Board of Supervisors to discuss the Element. Courtesy notices of these



public hearings were mailed to a large number of organizations and individuals interested in housing issues. The meetings were noticed in the Independent Journal. In addition, notices of the meetings were posted in community centers, libraries, the County Courthouse, laundromats, and other public areas throughout the County.

## APPENDIX C



## COST OF CONSTRUCTION

As an example of the cost of construction in Marin County, in May 1988 the Builders Exchange calculated the following figures for a typical three bedroom, two bath house in a small subdivision. The overall design would be semi-custom (the builder alters the design of each unit to avoid monotony). One further assumption is that the parcel is near existing roads and utilities.

### Cost Item

|                |                                                                                 |
|----------------|---------------------------------------------------------------------------------|
| \$150,000      | Level parcel, approximately one acre in size                                    |
| 10,000         | Infrastructure installation: storm drain, sewer and water lines, electric lines |
| <u>150,000</u> | Labor and materials for construction, (2,000 sq.ft. unit)                       |
| \$310,000      |                                                                                 |

The Builders Exchange further subdivided the \$150,000 cost of constructing the house into the following percentage components:

### Percentage

#### Cost

#### Item

|         |                            |
|---------|----------------------------|
| 2       | fees and plan check        |
| 3.5-4   | foundation                 |
| 8-8.5   | lumber                     |
| 11      | labor (rough e.g. framing) |
| 2       | labor (finish)             |
| 5       | cabinets, counters         |
| 2.5     | insulation                 |
| 5.5-6   | roof                       |
| 2.5     | doors                      |
| 1.5     | windows, sliding doors     |
| 8       | siding                     |
| 4-4.5   | sheet rock                 |
| 4       | painting                   |
| 2.5-3   | carpeting                  |
| 1.5     | appliances                 |
| 13.5-15 | heating, plumbing          |
| 4.5-5   | electrical wiring          |
| 10-15   | overhead and profit        |





## APPENDIX D



## DEVELOPMENT IN THE COASTAL ZONE

From January, 1982 to December 31, 1987 there have been an estimated 312 Coastal Permits issued by the County. County Planning staff estimates that the majority of these permits were issued for single-family residential unit construction. However, there were two projects known to be affordable to low income persons that were assisted by the County during this time period. One was a 25-unit Section 202 rental project for very low income elderly people (constructed in 1985), and the other was a 9-unit owner/builder project (still under construction as of June, 1990).

Since development in unincorporated Marin is concentrated in urban areas, there will probably be very little affordable housing developed in the coastal zone between 1990 and 1995. It is estimated that 25 units will be constructed within the time frame of this Element which will be affordable to those households with low and very low incomes<sup>42</sup>. (There will not be any low income or very low income units required to be constructed in the Coastal Zone during the time frame of this Element.)

Since there were only an estimated 36 demolition permits issued county-wide during the six year period (January, 1982 - December, 1987), and since most construction in the county took place outside of the coastal zone, it is unlikely that a significant number of units affordable to low or moderate income persons were demolished. Due to the requirements of the Condominium Conversion Ordinance which prohibits the conversion of rental units into condominiums, it is highly unlikely that there have been any conversions of units from rental units into condominiums. Therefore, there will not be any additional affordable units needed to replace those lost through demolition or conversion.

---

<sup>42</sup> It is assumed that the number of below moderate income units constructed in the coastal zone between 1990 and 1995 will be the same number that was constructed between 1984 and 1989.





## APPENDIX E



BOARD OF SUPERVISORS OF THE COUNTY OF MARIN

ORDINANCE NO. 3025

RECEIVED 7/1

AN ORDINANCE ESTABLISHING FEES FOR ZONING RELATED  
APPLICATIONS, (MARIN CODE TITLE 22);  
SUBDIVISION APPLICATIONS, (MARIN COUNTY CODE TITLE 20);  
FLOATING HOME EXCEPTIONS, (MARIN COUNTY CODE CHAPTER 19);  
AND ENVIRONMENTAL REVIEW (CALIFORNIA ENVIRONMENTAL QUALITY ACT)

SECTION I. The Board of Supervisors of the County of Marin hereby ordains:

- I. WHEREAS, Marin County Code, Title 22 establishes procedures for processing Zoning and related applications by the County, and
- II. WHEREAS, Marin County Code, Title 20 establishes procedures for processing Subdivisions by the County; and
- III. WHEREAS Marin County Code, Chapter 19 establishes procedures for processing and review of Floating Home Exception permits by the County, and
- IV. WHEREAS the California Environmental Quality Act establishes requirements for Environmental Review, and
- V. WHEREAS the cost to the County for such processing should be offset by the collection of reasonable fees, and
- VI. WHEREAS pursuant to Government Code Section 54985 et seq, the Board of Supervisors hereby finds that the fees specified herein comprise the estimated cost to provide the indicated service.

SECTION II. The following fees shall be effective on and after July 1, 1990.

1. a. Use Permit and Amendment ..... \$1,200  
b. Minor Use Permits (e.g. Administrative Use Permit) .....810  
c. Use Permit for Second Unit.....650
2. Use Permit for Mobile Home.....300
3. Variance Amendment .....945
4. a. Extension to Use Permit or Variance .....200  
b. Extension to Use Permit or Variance Requiring a Public Hearing.....350
5. Sign Review .....350
6. Sign Permit .....120



7. Design Review or Precise Development Plan

Value of Project

|                               |       |
|-------------------------------|-------|
| Under \$20,000 .....          | 450   |
| \$20,000 - \$50,000 .....     | 1,100 |
| \$50,000 - \$100,000 .....    | 1,520 |
| \$100,000 - \$500,000 .....   | 2,530 |
| \$500,000 - \$1,000,000 ..... | 3,370 |
| Over \$1,000,000 .....        | 5,900 |

Design Review/Single Family .....850

Design Review/Minor .....400

Extension to Design Review/Precise Development Plan .....200

8. Amendment to Design Review/Precise Development Plan

Value of Project

|                               |       |
|-------------------------------|-------|
| Under \$20,000 .....          | 280   |
| \$20,000 - \$50,000 .....     | 660   |
| \$50,000 - \$100,000 .....    | 920   |
| \$100,000 - \$500,000 .....   | 1,520 |
| \$500,000 - \$1,000,000 ..... | 2,020 |
| Over \$1,000,000 .....        | 3,100 |

9. Master Plan

Non-Residential..... 6,650

.....+.12% improvement value

Residential 1 - 4 units ..... 4,200+ 70/unit

Residential 5 units or more ..... 7,650+ 30/unit

10. a. Minor amendment to Master Plan..... 1,075

b. Major amendment to Master Plan..... 3,065

c. Master Plan time extension.....300

11. Rezoning..... 3,065

12. Street Name Change.....115

13. Building Permit (major plan checks).....190

(\$25 for Building Inspection - DPW, \$165 for major Planning plan check) plus \$50 for each additional detached unit when plan checks submitted to the Planning Department for more than one residential dwelling unit are proposed under one application.

Building Permit (minor plan checks) includes non-structural building improvements only.....65

(\$10 for Building Inspection - DPW, \$55 for major Planning plan check) Plus \$50 for each additional detached unit when plan checks submitted to the Planning Department for more than one residential dwelling unit are proposed under one application.

|                                                                                                           |       |
|-----------------------------------------------------------------------------------------------------------|-------|
| 13a. Building Permit - (Solar Panels) .....                                                               | 50    |
| 14. Appeals to Planning Commission .....                                                                  | 200   |
| 15. Appeals to Board of Supervisors .....                                                                 | 300   |
| 16. Countywide or Community Plan or Coastal Plan Amendment .....                                          | 2,800 |
| (Amendments to Special Area Plans and other plans<br>required by State law are included in this category) |       |
| 17. Coastal Permits                                                                                       |       |
| a. Administrative.....                                                                                    | 250   |
| b. Public Hearing.....                                                                                    | 425   |
| c. Time Extension .....                                                                                   | 100   |
| 18. Tidelands Permit Fee .....                                                                            | 450   |

#### SUBDIVISION APPLICATION FEES, (MARIN COUNTY CODE TITLE 20)

The following fees shall be required for the Subdivision applications listed:

|                                                                                         |         |
|-----------------------------------------------------------------------------------------|---------|
| 19. Tentative Map, where Final Map required:                                            |         |
| a. For the first 5 lots .....                                                           | \$3,370 |
| b. For each additional lot .....                                                        | +20     |
| c. For each lot proposed to be served by a septic tank .....                            | +20     |
| Tentative Map, where Parcel Map required:                                               |         |
| a. For 4 or less lots .....                                                             | 3,070   |
| b. For each lot proposed to be served by a septic tank .....                            | +20     |
| 21. For Lot Line Adjustment where no additional lot is to be created .....              | 200     |
| 22. Extension of an approved Tentative Map where Final Map is required .....            | 100     |
| 23a. A minor revision of an approved Tentative Map where Final Map<br>is required ..... | 450     |
| 23b. A major revision of an approved Tentative Map where Final Map<br>is required ..... | 1,400   |
| 24. Extension of an approved Tentative Map where Parcel Map is required.....            | 100     |
| 25. Revision of an approved Tentative Map where Parcel Map is required.....             | 450     |
| 26. Certificate of Compliance.....                                                      | 345     |
| 27. Single-Holding Form .....                                                           | 70      |
| 28. Merger Request.....                                                                 | 50      |

FLOATING HOME EXCEPTION APPLICATION FEES, (MARIN COUNTY CODE, CHAPTER 19)

The following fee shall be required for the Floating Home Exception application:

29. Floating Home Exception.....810

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The following fees shall be required for Environmental Review:

30. Environmental Review

- a. Initial Study .....500
- b. Categorical Exemption.....75
- c. EIR Administration Overhead .....25%
- d. Mitigation monitoring, and permit compliance review ..... \$40/hr

APPLICATION OF FEES

- A. Fees shall be submitted in full at the time of application submittal to the County.
- B. The Board of Supervisors may approve waiver or partial waiver of fees for good cause, to be determined by the Board of Supervisors.
- C. Portions of fees may be refunded upon withdrawal of the application; the amount of refund shall be determined by the Planning Director, based upon the portion expended by the County prior to withdrawal.
- D. Full fee credits may be granted toward resubmittal of applications if applications are withdrawn and resubmitted within 60 days from the date of withdrawal.
- E. In the event that any work has been undertaken or use made of the property without legal authority prior to completing the requisite procedures necessary to authorize such work or use, the applicant shall pay two times the specified amount.
- F. Where a project requires more than one permit the full fee shall be collected for each and every permit required.

SECTION III. Effective Date. This ordinance shall be and is hereby declared to be in full force and effect on April 26, 1990 and shall be published once before the expiration of fifteen (15) days after its passage, with the names of the supervisors voting for and against the same, in a newspaper of general circulation published in the County of Marin, the Independent Journal.

AYES: SUPERVISORS Al Aramburu, Gary Giacomini, Robert Stockwell, Bob Roumiguere


NOES: -

ABSENT: SUPERVISOR Harold Brown



CHAIRMAN OF THE BOARD OF SUPERVISORS  
COUNTY OF MARIN

ATTEST:



Vickie J. Day  
Clerk of the Board

## APPENDIX F





# PLANNED DISTRICTS

| ZONED DISTRICT                                          | PERMITTED USES<br>(With Master Plan and/or Design Review)                                                                                                                            | DENSITY - UNITS/CARE<br>(Examples) |                 | BUILDING HEIGHT<br>Main      Accessory |     | DEVELOPMENT STANDARDS |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------|----------------------------------------|-----|-----------------------|
|                                                         |                                                                                                                                                                                      |                                    |                 |                                        |     |                       |
| R.S.P.<br><br>Residential,<br>Single Family,<br>Planned | 1. One Family Dwelling<br>2. Public Parks and Playgrounds<br>3. Crop & Tree Farming<br>4. Nurseries & Greenhouses (Private)<br>5. Home Occupations<br>6. Accessory Buildings         | R.S.P.-0.25                        | 1 unit/4 acres  | 30'                                    | 15' | Design<br>Review      |
|                                                         |                                                                                                                                                                                      | R.S.P.-0.5                         | 1 unit/2 acre   |                                        |     |                       |
|                                                         |                                                                                                                                                                                      | R.S.P.-1.0                         | 1 unit/acre     |                                        |     |                       |
|                                                         |                                                                                                                                                                                      | R.S.P.-2.0                         | 2 units/acre    |                                        |     |                       |
| R.M.P.<br><br>Residential,<br>Multiple,<br>Planned      | 1. All uses permitted in R.S.P.<br>2. Schools, Libraries, Museums,<br>Churches, Private Tennis Courts.<br>3. Two Family and Multiple Family<br>Dwellings.<br>4. Lodges, Fraternities | R.M.P.-0.5                         | 1 unit/2 acres  | 30'                                    | 15' | Design<br>Review      |
|                                                         |                                                                                                                                                                                      | R.M.P.-1.0                         | 1 unit/acre     |                                        |     |                       |
|                                                         |                                                                                                                                                                                      | R.M.P.-5.0                         | 5 unit/acre     |                                        |     |                       |
|                                                         |                                                                                                                                                                                      | R.M.P.-10                          | 10 units/acre   |                                        |     |                       |
| A.R.P.<br><br>Agricultural,<br>Residential,<br>Planned  | 1. One Family Dwelling<br>2. Agricultural Uses: grazing,<br>dairying, crop farming, fish<br>hatchery, poultry, etc.<br>3. Guest Houses                                               | A.R.P.-2.0                         | 1 unit/2 acres  | 30'                                    | 15' | Design<br>Review      |
|                                                         |                                                                                                                                                                                      | A.R.P.- 10                         | 1 unit/10 acres |                                        |     |                       |
|                                                         |                                                                                                                                                                                      | A.R.P.- 60                         | 1 unit/60 acres |                                        |     |                       |

\*NOTE: Please see Chapter 22.47 of Marin County Code for more specific information on uses, design standards and requirements. All development in planned districts is subject to Design Review pursuant to Chapter 22.82 of Marin County Code.

Development of your parcel may be subject to certain fire protection requirements relative to water and fire hydrant availability. Please contact the County Fire Department or your local Fire Protection District for applicable regulations pertaining to development. It is recommended that this be done during the initial stages of project planning.

# SETBACKS

| ZONED DISTRICT | PERMITTED USES*<br>(**Without U.P., Variances, etc.)               | LOT AREA       | AVERAGE WIDTH | FRONT  | SIDE   | REAR                                | BUILDING HEIGHT              | F.A.R.<br>(Floor Area Ratio Maximum) |
|----------------|--------------------------------------------------------------------|----------------|---------------|--------|--------|-------------------------------------|------------------------------|--------------------------------------|
| A-2            | 1. Limited Agricultural.                                           | 2 Acres        | 100 Ft.       | 25 Ft. | 6 Ft.  | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| A-2:B-1        | 2. Processing of agricultural products grown entirely on property. | 6,000 Sq. Ft.  | 50 Ft.        | 25 Ft. | 5 Ft.  | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| A-2:B-2        | 3. Stables, etc.                                                   | 10,000 Sq. Ft. | 75 Ft.        | 25 Ft. | 10 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| A-2:B-3        | 4. Kennels having less than six dogs.                              | 20,000 Sq. Ft. | 100 Ft.       | 30 Ft. | 15 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| A-2:B-4        | 5. All uses permitted in R-1.<br>6. Accessory uses.                | 1 Acre         | 150 Ft.       | 30 Ft. | 20 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-A            | 1. All uses permitted in R-1.                                      | 7,500 Sq. Ft.  | 60 Ft.        | 25 Ft. | 6 Ft.  | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-A:B-1        | 2. Small livestock farming.<br>(See Sec. 22.14.020(2))             | 6,000 Sq. Ft.  | 50 Ft.        | 25 Ft. | 5 Ft.  | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-A:B-2        | 3. Dairy on five acres or more.                                    | 10,000 Sq. Ft. | 75 Ft.        | 25 Ft. | 10 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-A:B-3        | 4. Temporary sale of agricultural products.                        | 20,000 Sq. Ft. | 100 Ft.       | 30 Ft. | 15 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-A:B-4        | 5. Accessory buildings and uses.                                   | 1 Acre         | 150 Ft.       | 30 Ft. | 20 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-1            | 1. One-family dwelling.                                            | 7,500 Sq. Ft.  | 60 Ft.        | 25 Ft. | 6 Ft.  | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-1:B-1        | 2. Public parks & playgrounds.                                     | 6,000 Sq. Ft.  | 50 Ft.        | 25 Ft. | 5 Ft.  | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-1:B-2        | 3. Crop and tree farming and gardening.                            | 10,000 Sq. Ft. | 75 Ft.        | 25 Ft. | 10 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-1:B-3        | 4. Nursery and greenhouses.                                        | 20,000 Sq. Ft. | 100 Ft.       | 30 Ft. | 15 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |
| R-1:B-4        | 5. Home occupations.<br>6. Accessory building uses.                | 1 Acre         | 150 Ft.       | 30 Ft. | 20 Ft. | 20% of Lot Depth/<br>25 Ft. Maximum | 2½ Stories<br>35 Ft. Maximum | 30%                                  |

\* THE ABOVE SETBACKS ARE NOT APPLICABLE TO DETACHED ACCESSORY BUILDINGS.

\*\* For information regarding other zones, etc., please contact the Marin County Planning Department or current Marin County Zoning Ordinance.

## APPENDIX G





# Marin County Planning Department

Civic Center-San Rafael, California 94903

Telephone 499-6269

Mark J. Riesenfeld, AICP, Director

## ENVIRONMENTAL REVIEW FACT SHEET

### DEFINITION

State law requires all government agencies to perform environmental review on projects which require government approval. Environmental review criteria and procedures are set by the California Environmental Quality Act (CEQA) and the Marin County CEQA Guidelines. The Guidelines give specific information on what projects or activities are exempt from review, and criteria for determining whether a project should receive a Negative Declaration (declaration that the project would have no significant impact on the environment) or if an Environmental Impact Report (EIR) should be prepared. If a project is not exempt from environmental review an Initial Study is prepared to determine whether a Negative Declaration or an EIR is appropriate. An EIR must be prepared if any of the effects of the project may have a substantial adverse impact on the environment, regardless of whether the overall effect of the project is adverse or beneficial.

### TIME FRAME FOR PROCESSING

Environmental review is processed along with the application for project development approval. The required time for processing environmental review will vary depending upon the complexity of the project and its potential environmental impacts. Environmental review must be completed before action can be taken on the merits of a project. Generally, action is taken on environmental review and on the merits of the project at the same public hearing. State law requires that all development projects be approved or denied within six (6) months from the date of acceptance if a Negative Declaration or Exemption is issued for the project, and within one (1) year if an EIR is required.

### ENVIRONMENTAL REVIEW PROCESS

**STEP 1** PRE-APPLICATION RESEARCH/REVIEW - Before submitting your application for development approval (i.e., application for variance, tentative map, subdivision action), the applicant should determine what County regulations affect the project area. At this point a call or visit to the Zoning Counter will help you determine whether formal environmental review will be required for your project.

Generally, new construction of single-family dwellings, additions to existing structures, lot line adjustments, and replacement or reconstruction of existing structures are categorically exempt from environmental review. Projects that increase or change the intensity of use, involve new construction of a multi-family residential structure or any new commercial structure, and projects involving land divisions generally require preparation of a Negative Declaration or an EIR.

**STEP 2** SUBMIT APPLICATION AT ZONING COUNTER - If your project is not categorically exempt, you will be required to submit an Environmental Review Submission (attached to this fact sheet) with your Zoning/Development or Subdivision application. Please

(Continued)

## ENVIRONMENTAL REVIEW PROCESS (continued)

check with the counter planner if you have any questions regarding the Environmental Review Submission or the application. Incomplete or unclear applications will not be accepted for processing. The planner assigned to process your application will also process the environmental review of your project.

**STEP 3** CATEGORICAL EXEMPTION - If your project is exempt from environmental review a Notice of Exemption will be completed and submitted to the Planning Department's Environmental Coordinator for review. If acceptable and appropriate, the Notice of Exemption will be filed with the County Clerk's Office, and environmental review of your project is complete.

If the Environmental Coordinator determines that an exemption from environmental review is not appropriate for your project, you will be notified that an Initial Study is required and additional fees and an Environmental Review Submission must be submitted before further processing of your application can occur.

**STEP 4** INITIAL STUDY - The Initial Study is prepared by a staff planner to assess the potential for environmental impacts in order to determine whether an EIR or a Negative Declaration will be required. The initial study includes a checklist of potential environmental impact for concerns such as geophysical factors, biotic communities, hydrology, air quality, natural resources, and other concerns such as conformance with general and specific plan designations, community/cultural factors, economics, transportation, public services and public utilities.

**STEP 5** INITIAL DETERMINATION - Based upon the initial study, the Environmental Coordinator will make one of the following two findings:

1. the project has "No Significant Impact" and therefore a "Negative Declaration" would be in order. (See Step 6); or
2. the project will have, or may have, a significant impact on the environment and therefore requires the preparation of an EIR. (See Step 7)

The Environmental Coordinator may determine that an EIR is not appropriate for the project but may require that additional studies (i.e., traffic archaeological surveys, etc.) be conducted to augment the initial study. If additional studies are required, the applicant will be notified within 30 days from the date the application was accepted as complete.

**STEP 6** NEGATIVE DECLARATION - If it is determined that the proposed project will not have a significant effect on the environment, a Negative Declaration is prepared and a notice so stating is posted at two public places. Any citizen who believes that an EIR rather than a Negative Declaration should be prepared for the proposal may appeal to the Planning Commission within 10 days after the notice has been posted. If there is no appeal, environmental review of the project may proceed pursuant to Step 10 of this fact sheet. If an appeal has been filed, the Planning Commission will review the Initial Study and determine whether an EIR must be prepared in lieu of a Negative Declaration.

**STEP 7** PREPARATION OF DRAFT EIR - If it is determined that an EIR is required, a "Notice of Intent to prepare an EIR" is prepared and posted. Any citizen who believes that a Negative Declaration rather than an EIR should be prepared for the proposal may

(Continued)



## ENVIRONMENTAL REVIEW PROCESS (Continued)

appeal to the Planning Commission within 10 days after the notice has been posted. If an appeal has been filed, the Planning Commission will review the Initial Study and determine whether an EIR must be prepared in lieu of a Negative Declaration.

If an EIR is required, a draft EIR is first prepared. The time frame for this step averages two months and is primarily dependent on the scope and complexity of the proposed project and its impacts. The County will prepare the EIR by contract through a consulting firm. A fee will be charged to cover the cost of preparing the report and administering the process.

**STEP 8** REVIEW OF DRAFT EIR - The Planning Department will distribute copies of the draft EIR to those individuals and agencies on its designated review list. Additional copies may be sent to those who have a special interest in the project. A notice that the Draft EIR has been received and that copies are available for inspection will be posted. This review period must be in effect for a minimum of thirty (30) days.

**STEP 9** FINAL EIR - The Planning staff or consultants working under the supervision of planning staff will then prepare a Final EIR after the review period. The Final EIR will consist of the Draft EIR with addenda containing all the comments received, a list of persons, organizations and public agencies commencing on the Draft EIR, and the responses of the County to significant environmental issues raised in the Draft EIR and comments received.

**STEP 10** ADOPTION OF A NEGATIVE DECLARATION/CERTIFICATION OF FINAL EIR - The final reviewing authority (Planning Commission or Board of Supervisors) must adopt the Negative Declaration or certify the Final EIR prior to or at the time the merits of the project's application are finally considered. If not adopted or certified the document is returned for further review or information. A Negative Declaration or EIR is used to assist the decision-making body in reviewing environmental impacts that may occur as a result of the development proposal. If the development application is approved, the final reviewing authority may impose conditions, as suggested in the EIR or Negative Declaration, to mitigate any significant adverse environmental impacts.

## FOR FURTHER INFORMATION

- o Call or visit the Marin County Planning Department Zoning Counter, Room 308, Civic Center, San Rafael, California 94903: Open Monday through Friday (closed holidays)  
9 a.m.-12 p.m. and 1-5 p.m.  
(415) 499-6269
- o See Marin County Zoning Ordinance

## ENVIRONMENTAL REVIEW SUBMITTAL REQUIREMENTS

If Environmental Review is required, the following must be submitted:

1. A completed Environmental Review submission application accompanying your project application.
2. Any such material as may be required by the Planning Director or the Environmental Review Officer.
3. Filing fee (see Fee Schedule).





# **NOISE ELEMENT**



## NOISE ELEMENT

### TABLE OF CONTENTS

|                                                                         |    |
|-------------------------------------------------------------------------|----|
| I. INTRODUCTION                                                         | 1  |
| A. LEGAL AUTHORITY                                                      | 1  |
| B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS                          | 2  |
| C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS                         | 3  |
| D. ORGANIZATION OF THE ELEMENT                                          | 3  |
| II. POLICY HISTORY                                                      | 3  |
| III. IMPACTS OF NOISE ON COMMUNITIES                                    | 4  |
| A. SOURCES OF NOISE                                                     | 4  |
| B. PHYSICAL EFFECTS OF NOISE                                            | 4  |
| C. PSYCHOLOGICAL EFFECTS OF NOISE                                       | 4  |
| D. QUANTIFICATION OF NOISE                                              | 5  |
| IV. NOISE STANDARDS                                                     | 8  |
| V. EXISTING NOISE REGULATIONS                                           | 8  |
| A. FEDERAL REGULATIONS                                                  | 8  |
| 1. Occupational Safety and Health Administration                        | 8  |
| 2. Federal Highway Administration                                       | 8  |
| B. STATE REGULATIONS                                                    | 8  |
| 1. Vehicle Code                                                         | 8  |
| 2. Uniform Building Code                                                | 10 |
| C. COUNTY REGULATIONS                                                   | 10 |
| 1. Loud and Unnecessary Noise Ordinance                                 | 10 |
| 2. Wind Energy Conversion Systems                                       | 10 |
| 3. Conditions of Permit Approval                                        | 10 |
| 4. The Marin County Airport (Gnoss Field) Land Use Plan                 | 10 |
| VI. NOISE ISSUES IN UNINCORPORATED AREAS                                | 11 |
| A. NOISE FROM VEHICULAR TRAFFIC                                         | 11 |
| 1. Existing Noise Levels                                                | 11 |
| 2. Projections of Noise Levels                                          | 12 |
| B. AIRCRAFT NOISE                                                       | 15 |
| 1. Existing Noise Levels at the Marin County Airport at<br>Gnoss Field  | 15 |
| 2. Projected Noise levels at the Marin County Airport at<br>Gnoss Field | 15 |
| C. NOISE FROM THE HELIPORT                                              | 15 |
| 1. Existing Noise Levels at the Heliport Site                           | 18 |
| 2. Future Noise Levels at the Heliport Site                             | 18 |



|                                                                                |    |
|--------------------------------------------------------------------------------|----|
| D. NOISE FROM THE RAILROAD                                                     | 18 |
| 1. Existing Noise Levels Along the Northwestern Pacific<br>Railroad Tracks     | 18 |
| 2. Future Noise Levels Along the Northwestern Pacific<br>Railroad Right-of-Way | 18 |
| E. NOISE LEVELS FROM CONSTRUCTION                                              | 20 |
| 1. Existing Levels of Noise from Construction                                  | 20 |
| 2. Future Noise Levels from Construction Activity                              | 20 |
| F. NOISE FROM OTHER STATIONARY SOURCES                                         | 22 |
| G. NOISE STANDARDS FOR DEVELOPMENT                                             | 22 |
| VII. OBJECTIVES, POLICIES AND PROGRAMS                                         | 23 |

## LIST OF TABLES

|                                                              |    |
|--------------------------------------------------------------|----|
| N-1. Land Use Compatibility for Community Noise Environments | 9  |
| N-2. Summary of Findings in Technical Report #4              | 13 |

## LIST OF FIGURES

|                                                                                    |    |
|------------------------------------------------------------------------------------|----|
| N-1. Noise Levels of Common Noise Sources                                          | 6  |
| N-2. Percentage of Persons Highly Annoyed from Exposure to Noise at Various Levels | 7  |
| N-3. Location of Noise Measurements                                                | 14 |
| N-4. Existing Noise Contours for the Airport at Gness Field 1986                   | 16 |
| N-5. Projected Future Noise Contours for the Airport at Gness Field 2006           | 17 |
| N-6. Existing Noise Contours for the Heliport                                      | 19 |
| N-7. Construction Equipment Noise Level Ranges                                     | 21 |

## APPENDICES

|                                                         |    |
|---------------------------------------------------------|----|
| N-1. Existing and Projected Future Traffic Noise Levels | 29 |
|---------------------------------------------------------|----|



## I. INTRODUCTION

State law requires that a Noise Element be prepared as part of all city and county General Plans. Noise Elements are required to identify noise problems in the community and work toward their resolution. The Marin County Noise Element has been prepared to meet the requirements of State law.

The Marin County Board of Supervisors adopted a Noise Element as part of the Countywide Plan in 1975. The County has revised the Noise Element to incorporate new information and concerns related to community noise exposure levels in the county. The purpose of the Element is to identify current and projected future noise levels from major sources, including Highway 101, the heliport adjacent to Richardson Bay, and the airport at Gnos Field (north of Novato). Based on the levels of noise from these sources, the Element identifies programs to help mitigate significant noise problems in the community.

### A. LEGAL AUTHORITY

The California Legislature has found that excessive community noise levels are a matter of statewide concern. In 1973 the Legislature adopted the Noise Control Act, which found:

An excessive amount of noise is a serious hazard to the public health and welfare;

Exposure to high levels of noise can result in physical and psychological damage; and

There is a continuous and increasing amount of noise in urban, suburban, and rural areas. Upon making these findings, the State required that all general plans include noise elements to identify and help mitigate noise problems in the community.

Section 65302 (f) of the California Government Code requires that a General Plan contain a noise element which:

...shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health and Human Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:



Highways and freeways;

Primary arterials and major local streets;

Passenger and freight on-line railroad operations and ground rapid transit systems;

Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation;

Local industrial plants, including, but not limited to, railroad classification yards;

Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive. The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

## B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Noise Element provides policy guidance for the siting and scale of development contained in the Community Development element. The traffic-related data used for measuring noise levels associated with transportation are contained in the Transportation Element.

## C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

The transportation-related data used for noise contour modeling along Highway 101 and major roads were obtained from Transportation Element technical reports #3, Existing Conditions, and #4 Transportation Impacts of the Preferred Land Use Alternative.

## D. ORGANIZATION OF THE ELEMENT

The introduction to the Element cites the legal authority for drafting a Noise Element and shows its relationship to other General Plan elements and documents. It also reviews the Noise Element which was adopted in 1975. The second section discusses general impacts of noise on the community and defines terms and concepts related to the quantification of noise. The third section lists compatible land uses at various noise levels and recommends measures to minimize community exposure to excessive levels of noise. The fourth section discusses existing State and County regulations which control sources of noise not addressed in the Element, such as amplified music. Following that section is a description of significant noise sources in the county. Where appropriate, a quantification of existing and projected levels of noise from each source is provided. The sixth section identifies objectives, policies, and programs to help minimize exposure of persons to excessive amounts of noise.

## II. POLICY HISTORY

The Noise Element of the Countywide Plan, which was adopted in 1975, was concerned exclusively with noise impacts of transportation facilities. It documented the physical and physiological effects of noise on the community, measured noise levels from major streets in the County, and established policies to achieve the following objectives:

Alert the public regarding the potential impact of excessive transportation noises, as well as stationary source noises, and attempt to assign the cost of mitigating noise to those who produce the noise;

Establish land use categories compatible with noise levels adjacent to transportation facilities, and endeavor to protect quiet areas from future noise impacts; and,

Minimize excessive noise levels of existing and future transportation facilities so that noise does not jeopardize public health and welfare.

In order to achieve these objectives, the 1975 Element recommended that an outdoor day-night sound level of 55 decibels for new residential uses be estimated and that usable outdoor areas not be exposed to noise levels over 60 decibels without mitigation.

The 1975 Element provided policies which were used in the review of projects along major roads. The implementation of these policies minimized the exposure of new development to excessive levels of noise produced by vehicular traffic. However, since the scope of the Element was limited exclusively to noise generated by vehicular traffic along major roads, the Element did not provide policy direction for noise impacts from other sources such as airports and railroads.

### **III. IMPACTS OF NOISE ON COMMUNITIES**

#### **A. SOURCES OF NOISE**

The Noise Element focuses on noise produced by:

highways and freeways;

major streets;

railroads;

airports and heliports; and

other stationary sources identified by local agencies as contributing to community noise levels.

#### **B. PHYSICAL EFFECTS OF NOISE**

Loss of hearing can result from either a single exposure to high intensity noise such as a blast or explosion or from longer exposures to lower, but still damaging, noise levels. Studies have shown that exposure to damaging levels of noise may increase the risk of high blood pressure and heart disease. Noise has also been related to headaches, fatigue, insomnia, ulcers, and colitis.

#### **C. PSYCHOLOGICAL EFFECTS OF NOISE**

Excessive levels of noise can cause anxiety, irritability, emotional stress, nausea, vertigo, lack of coordination, and mental confusion. Noise can also interfere with sleep, often resulting in lethargy and nervousness.



## D. QUANTIFICATION OF NOISE

A sound becomes "noise" when it is undesirable. Many factors can influence a person's judgment of whether or not a level of noise is excessive. These factors include: noise intensity, frequency (or pitch), duration, the time of day, and the activity with which the sound interferes. Other factors include a person's previous experience with noise, socioeconomic status, and educational status.

The description of noise currently in general use is the day-night average sound level (Ldn). The day-night average sound level is the average sound level over a 24-hour time period. Ldn is expressed in decibels (dB), which is the standard measure of sound pressure. Ldn includes the addition of a 10 dB penalty for sound levels which occur at night between the hours of 10:00 p.m. and 7:00 a.m. This nighttime penalty is based on the fact that most noise-sensitive activities occur between these hours.

Since the human ear can detect noise at some frequencies more easily than noise at other frequencies, filters are used with sound level measuring equipment to suppress frequency ranges that the ear cannot readily detect. The "A" filter is normally used in measurements of noise, since it was designed to match the frequency sensitivity of the human ear. Hence, noise levels are normally expressed as "A-weighted" levels. All sound or noise levels in this element are A weighted levels, abbreviated as dB or dBA. Also, all discussion of Ldn assumes that Ldn is measured in A-weighted decibels.

Figure N-1 shows average noise levels of common noise sources. An average whisper is measured at 20 dBA. Freeways normally generate noise levels of 60 dBA or more. A loud automobile horn registers at about 100 dBA.

Because decibels are logarithmic units of measure, changes in decibels can be somewhat difficult to interpret. A change of three decibels, for example is hardly noticeable, while a change of five decibels is quite noticeable. An increase of ten decibels is dramatic and is perceived as a doubling of the noise level. Figure N-2 further demonstrates the logarithmic nature of the decibel scale. An increase of ten decibels (from 50 dB to 60 dB) increases the percent of the population that is highly annoyed at the noise source by about seven percent, while an increase of 20 dB (from 50 dB to 70 dB) increases the percentage by approximately 25%.

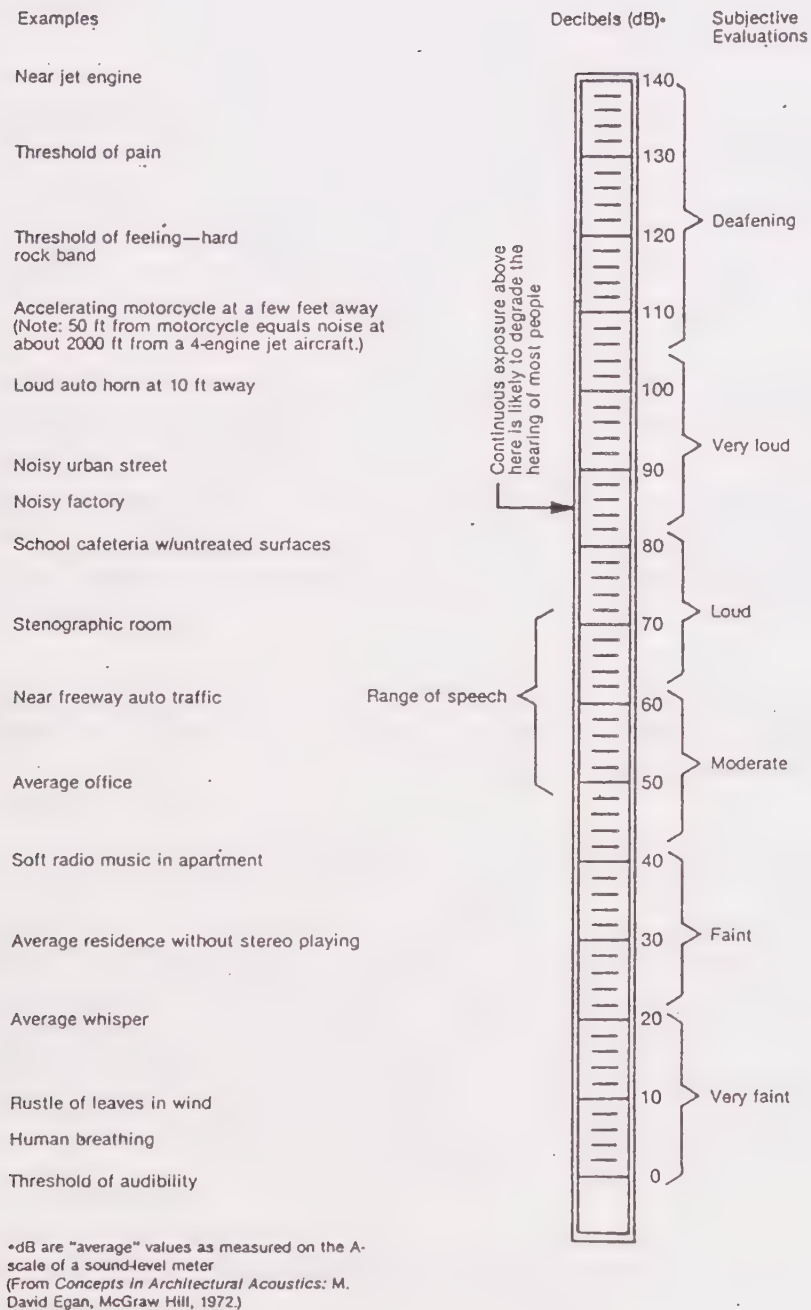
The decibel scale also has the following characteristics:

For each doubling of distance from a point noise source (such as an air conditioning unit) the sound will decrease by about six decibels.

For each doubling of distance from a line source (such as a freeway) noise levels are reduced by three to five decibels.

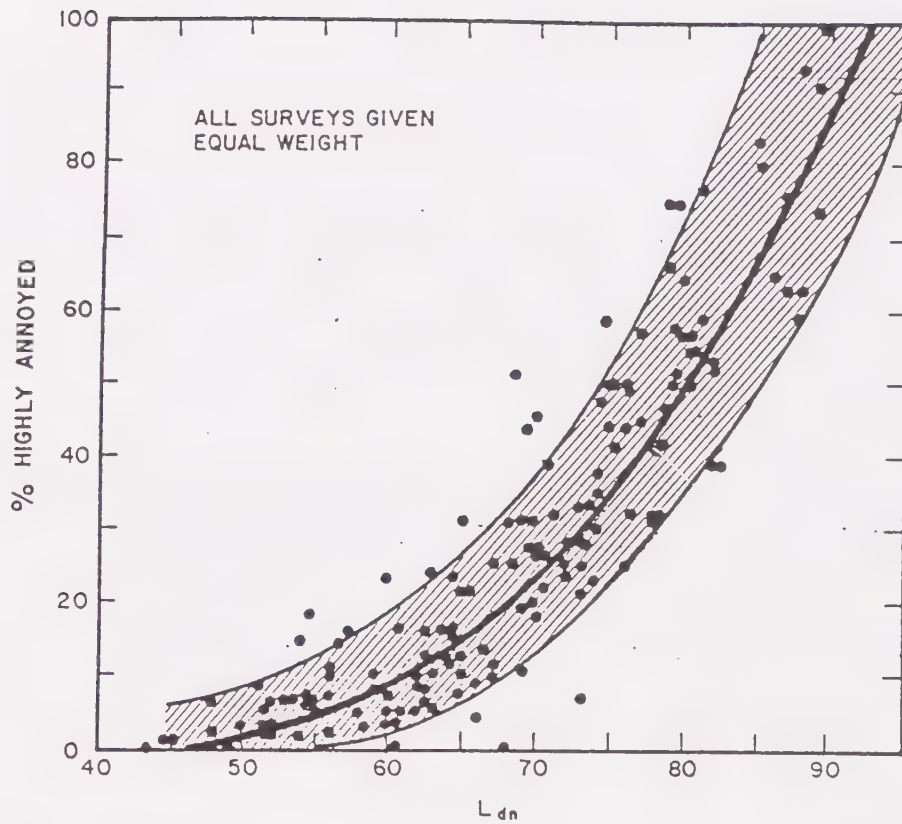


**Figure N-1. Noise Levels of Common Noise Sources**



Source: U.S. Department of Housing and Urban Development, 1985, The Noise Guidebook, p. 1

Figure N-2. Percentage of Persons Highly Annoyed from Exposure to Noise at Various Levels



Source: California Department of Transportation: Division of Aeronautics, 1983, Airport Land Use Planning Handbook, p. 34

Two identical sounds from the same area increase the noise level by three decibels above the level of each separate noise source.

#### IV. NOISE STANDARDS

The California Office of Noise Control (ONC) and the Office of Planning and Research recommend standards of land use compatibility for community noise environments. These standards are shown in Table N-1.

#### V. EXISTING NOISE REGULATIONS

##### A. FEDERAL REGULATIONS

###### 1. Occupational Safety and Health Administration

The Federal Occupational Safety and Health Administration (OSHA) has established standards which protect workers from exposure to excessive levels of noise. OSHA requires firms provide hearing protection to workers exposed to noise levels of more than 85 dBA, and prohibits exposure of workers to noise levels exceeding 120 dBA.

###### 2. Federal Highway Administration

The Federal Highway Administration and the California Department of Transportation have similar policies for new roadway construction and roadway expansion. These policies contain noise abatement criteria for lands adjacent to highways and selected roads. These criteria are used for determining when noise abatement measures should be evaluated.

##### B. STATE REGULATIONS

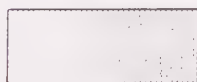
###### 1. Vehicle Code

Vehicle noise limits are contained in the State Vehicle Code. Proper muffling can bring the exhaust system of most motorcycles, cars, and trucks into compliance with State noise limits. The State Vehicle Code also limits noise levels from sound amplification systems in automobiles. The California Highway Patrol and County Sheriffs are responsible for enforcement of the Vehicle Code.

**Table N-1. Land Use Compatibility  
for Community Noise Environments**

| LAND USE CATEGORY                                                                | COMMUNITY NOISE LEVEL<br>Ldn or CNEL dB |    |    |    |    |    |
|----------------------------------------------------------------------------------|-----------------------------------------|----|----|----|----|----|
|                                                                                  | 55                                      | 60 | 65 | 70 | 75 | 80 |
| RESIDENTIAL - LOW DENSITY<br>SINGLE FAMILY, DUPLEX,<br>MOBILE HOMES, AGRICULTURE |                                         |    |    |    |    |    |
| RESIDENTIAL - MULTI FAMILY                                                       |                                         |    |    |    |    |    |
| TRANSIENT LODGING<br>MOTELS, HOTELS                                              |                                         |    |    |    |    |    |
| SCHOOLS, LIBRARIES,<br>CHURCHES, HOSPITALS,<br>NURSING HOMES                     |                                         |    |    |    |    |    |
| AUDITORIUMS, CONCERT HALLS,<br>AMPHITHEATRES                                     |                                         |    |    |    |    |    |
| SPORTS ARENAS, OUTDOOR<br>SPECTATOR SPORTS                                       |                                         |    |    |    |    |    |
| PLAYGROUNDS,<br>NEIGHBORHOOD PARKS                                               |                                         |    |    |    |    |    |
| GOLF COURSES, RIDING STABLES,<br>WATER RECREATION, CEMETERIES                    |                                         |    |    |    |    |    |
| OFFICE BUILDINGS, BUSINESS<br>COMMERCIAL AND PROFESSIONAL                        |                                         |    |    |    |    |    |
| INDUSTRIAL, MANUFACTURING<br>UTILITIES                                           |                                         |    |    |    |    |    |

### INTERPRETATION



#### **NORMALLY ACCEPTABLE**

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



#### **CONDITIONALLY ACCEPTABLE**

New construction should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply will normally suffice.



#### **NORMALLY UNACCEPTABLE**

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



## 2. Uniform Building Code

The State Uniform Building Code requires certain sound insulation measures to be incorporated into the design and construction of all new residential construction other than detached single-family dwellings. The County Building Inspection Department is responsible for enforcing State Building Code requirements.

## C. COUNTY REGULATIONS

### 1. Loud and Unnecessary Noise Ordinance

Chapter 6.70 of Marin County Code (Loud and Unnecessary Noises) restricts the creation and continuation of loud, unnecessary, or unusual noise. This ordinance, enforced by the County Sheriff's Department, prohibits excessive noise levels from various sources including motor vehicles, amplification systems, and persons yelling.

### 2. Wind Energy Conversion Systems

Chapter 22.71 of Marin County Code, "Wind Energy Conversion Systems (WECS)" specifies the maximum noise level of WECS at the property line in residential areas (55 dBA) and all other areas (60 dBA). This ordinance is enforced by the County Planning Department.

### 3. Conditions of Permit Approval

Planning Department staff is responsible for evaluating noise impacts when reviewing permits for new and existing development. Conditions of permit approval may include conditions to reduce noise impacts on neighboring parcels, such as limiting the hours of construction. Planning Department staff is responsible for enforcing conditions of permit approval.

### 4. The Marin County Airport (Gross Field) Land Use Plan

The County has prepared an Airport Land Use Plan (ALUP) for the Marin County public airport at Gross Field in compliance with State Aeronautics law (California Public Utilities Code, Chapter 4, Article 3.5). Noise measurements of the airport were made for the plan, and policies were established for future land use in the vicinity of the airport. The Noise Element is required to be consistent with the policies of the ALUP.

## VI. NOISE ISSUES IN UNINCORPORATED AREAS

The following discussion quantifies the existing and projected levels of noise from major noise sources in unincorporated areas of the county. Traffic noise along roads is the primary source of noise in Marin County. Other major sources of noise include: (1) aircraft in the vicinity of the Marin County Airport at Gnos Field; (2) helicopter traffic in the vicinity of the heliport located adjacent to Richardson Bay; (3) railroad traffic along the Northwestern Pacific right-of-way; and (4) noise from stationary sources, such as construction sites and industrial coolers.

Although significant levels of noise from other sources such as amplifiers, automotive sound systems, and persons yelling may occur, they are restricted by State and County regulations. Consequently, noise from those sources are not included in the following discussion.

### A. NOISE FROM VEHICULAR TRAFFIC

The noise generated from vehicular traffic is the primary source of noise in Marin County. The level of noise from traffic is influenced by a number of factors, the most significant of which are:

- the number of trucks, buses, motorcycles and cars;

- the speed of travel along the road;

- the distance between the roadway and the receiver;

- the slope or gradient of the roadway; and,

- the presence or absence of barriers between the roadway and the receiver.

#### 1. Existing Noise Levels

Existing noise levels from major roads in unincorporated areas were measured in two ways. First, noise was measured at six roadside locations in 1987, with continuous 24-hour measurements at three highway locations, and longer term measurements at three other roadside locations along coastal access routes. Second, the existing noise levels from major roads were estimated based on calculations of traffic volumes in 1987. The model used to generate traffic volume figures is the same model used to estimate traffic volumes for the Transportation Element of the Countywide Plan.

a.      Measurements of Existing Noise Levels

Technical Report #4 of the Noise Element, Marin County Noise Measurements, presents measurements of noise levels at six locations throughout the county. The study was performed by consultants in August and September of 1987. Figure N-3 shows the approximate location of each of these sites. Table N-2 summarizes the findings of the Technical Report.

The measurements indicate that average noise levels from recreational-based traffic along coastal access routes were about the same as noise levels of commuter traffic along these same routes. For example, the Ldn of the site at Sir Francis Drake Boulevard in Woodacre was 71 dBA on both Friday and Saturday. The hours of highest noise levels differed between Friday and Saturday for all three coastal access routes. Generally, high noise levels from traffic on Friday was concentrated during typical commute hours of 6 a.m. and 9 a.m., while noise levels on Saturday were fairly consistent throughout the day.

b.      Calculations of Existing Noise Levels

Noise levels from a selected sample of major roads in unincorporated Marin County were calculated for the year 1987. Estimated average daily traffic volumes were derived from the County's transportation model as well as from actual counts. Traffic volumes for the major roads were converted to estimates of noise levels using the methods approved by the Federal Highway Administration (FHWA 20-77-108) and Caltrans Vehicle Noise Emission Levels.

Appendix N-1 gives the distance between the center of the roadway and noise contour for the contours between 60 and 80 dBA. Noise levels exceeding 60 dBA occur along twenty-six distinct highway and road segments.

2.      Projections of Noise Levels

Highways and streets are expected to continue to be the major noise sources in the county. Projections of future noise levels are listed in Appendix N-1. Along most roadways, noise levels are calculated to increase by 0 to 2 dBA. The largest projected increases are 3 dBA along Bel Marin Keys Boulevard and Nicasio Valley Road and 4 dBA along Novato Boulevard.

Table N-2. Marin County Noise Measurements

| Site | Location                                     | Feet From Center of Roadway | Date         | Noise Level (Ldn) | Max. dBA | Number of Times 80 dBA was Exceeded |
|------|----------------------------------------------|-----------------------------|--------------|-------------------|----------|-------------------------------------|
| 1    | Black Point (Highway 37)                     | 106                         | 8/5- 8/6/87  | 71                | 99       | 83                                  |
| 2    | St. Vincent's - Silveira Ranch (Highway 101) | 800                         | 8/5-8/6/87   | 56                | 76       | 0                                   |
| 3    | Woodacre (Sir Francis Drake Blvd.)           | 45                          | 8/6-8/7/87   | 71                | 92       | 121                                 |
|      |                                              |                             | 8/8/87       | 71                | 97       | 68                                  |
|      |                                              |                             | 8/9/87       | -                 | 91       | 45                                  |
| 4    | Cheese Factory (Petaluma/Point Reyes Road)   | 37                          | 8/6-8/7/87   | 68                | 103      | 88                                  |
|      |                                              |                             | 8/8/87       | 67                | 87       | 59                                  |
|      |                                              |                             | 8/9/87       | -                 | 91       | 80                                  |
| 5    | Pt. Reyes Station (Highway 1)                | 43                          | 8/13-8/14/87 | 62                | 85       | 18                                  |
|      |                                              |                             | 8/15/87      | 64                | 91       | 37                                  |
|      |                                              |                             | 8/16/87      | -                 | 100      | 38                                  |
| 6    | Marin City (Highway 101)                     | 100*                        | 9/3-9/4/90   | 75                | 93       | 26                                  |

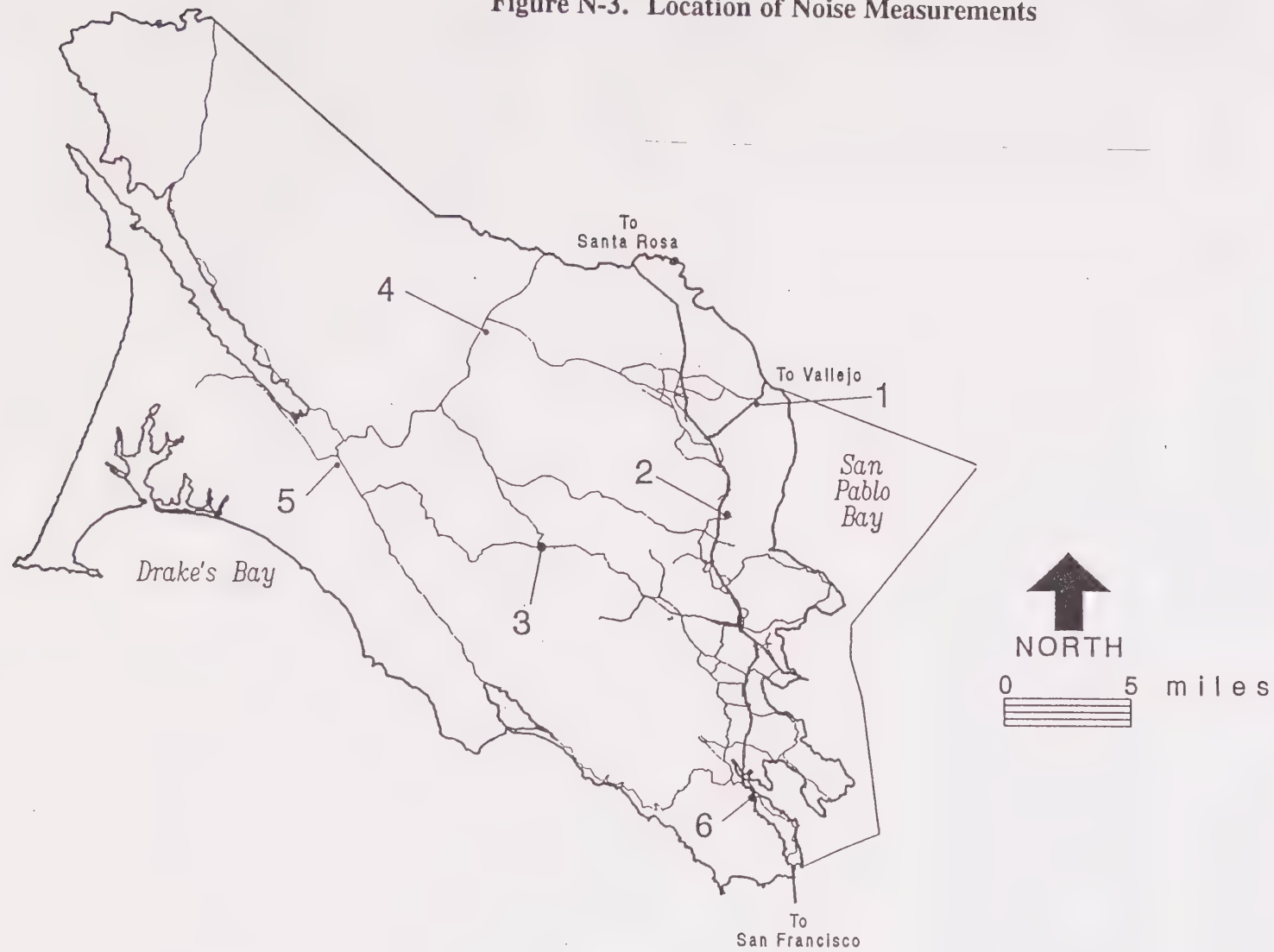
\* Measurements were taken 100 feet from the southbound lane of Highway 101.

The Ldn for the sites ranged from 56 dB (800 feet from the centerline of Highway 101 at St. Vincent's/Silveira Ranch) to 75 dB (100 feet away from the southbound lane of Highway 101 at the Marin City Redevelopment site). The highest noise level measured was 103 dBA (37 feet from the centerline of the Petaluma/Point Reyes Road near the Marin-Sonoma Cheese Factory). This event occurred Friday afternoon between the hours of 12 p.m. and 1 p.m. and was likely caused by an emergency siren.

Source: Illingworth and Rodkin, 1987, Marin County Noise Measurements, 22 p.



Figure N-3. Location of Noise Measurements



Source: Illingworth & Rodkin, 1987, Marin County Noise Measurements, pp. 16-22

## B. AIRCRAFT NOISE

Noise from aircraft is often more intrusive and has a higher potential noise impact than noise from traffic along roadways. The visibility of aircraft at low altitudes, and typically lower background noise levels at airports seems to create a heightened awareness of general aviation activity. Noise levels are also influenced by the number of aircraft, the type of aircraft engine, the distance between the flight path/runway and the receiver, and the presence or absence of physical barriers between the flight path/runway and the receiver.

### 1. Existing Noise Levels at the Marin County Airport at Gness Field

The Marin County Airport at Gness Field is located immediately east of Highway 101, north of Novato. A master plan was prepared for the site in July, 1989, to provide the County with guidelines to be used in making decisions on the development of facilities at Gness Field, through the year 2006. Noise contours showing noise levels in the vicinity of the airport as of 1986 were included in a Draft Environmental Impact Report prepared for the Master Plan<sup>1</sup>. These contours are shown in Figure N-4.

### 2. Projected Noise Levels at the Marin County Airport at Gness Field.

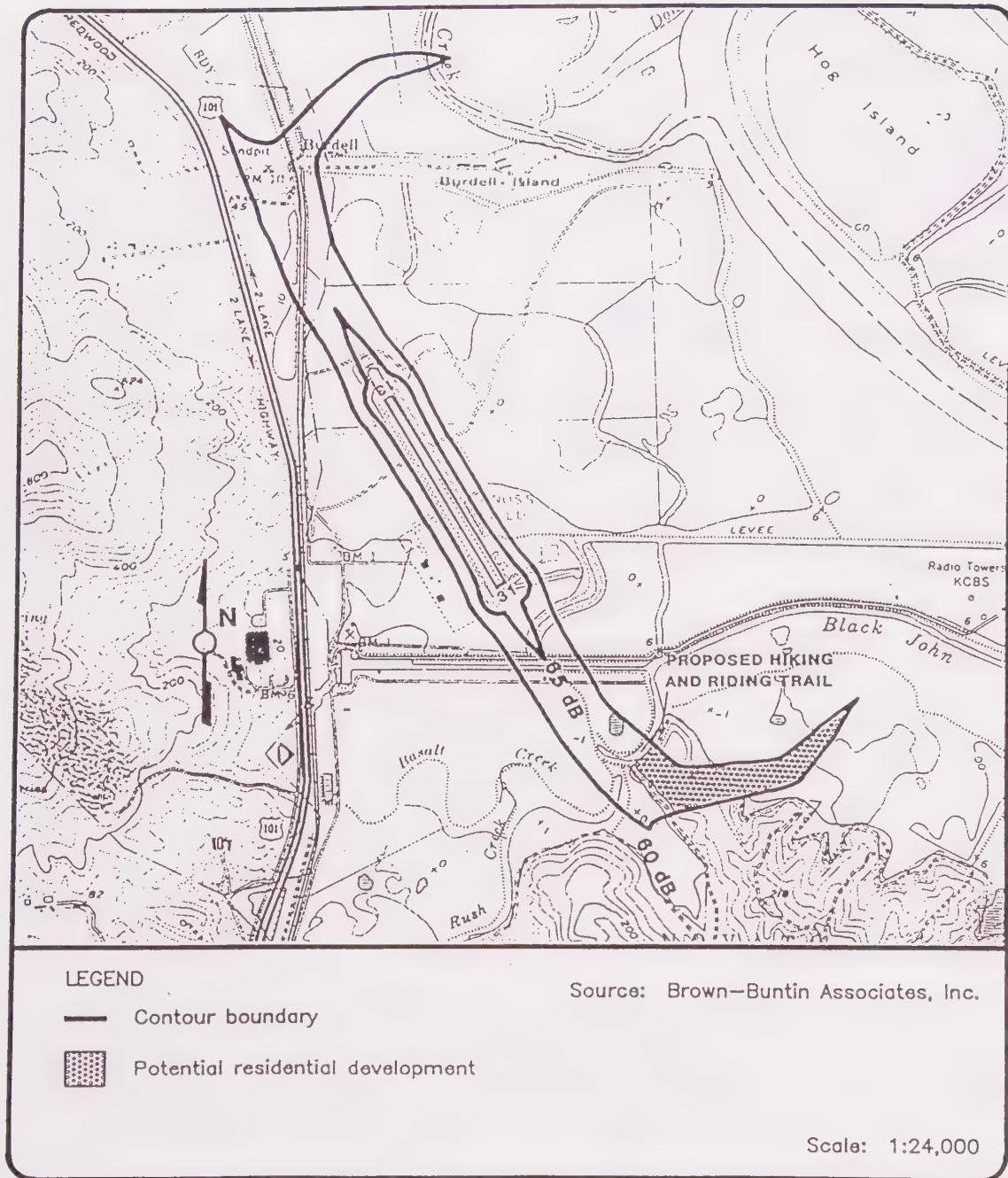
The master plan for the airport at Gness Field indicates that the number of aircraft based at Gness Field is expected to increase by 127 aircraft, increasing from 283 aircraft in 1986 to 510 in the year 2006 (Cortright & Seibold, 1989, Airport Master Plan: Marin County Airport (Gness Field), p. 3.13). The additional 127 aircraft are expected to generate a greater number of takeoffs and landings, projected at an increase of 60,000 takeoffs and landings between 1986 and the year 2000. The airport is likely to generate a higher average day-night level of noise, but noise levels at peak periods may remain the same.

Additionally, a new runway perpendicular to the existing runway is expected to be developed by the year 1997. Aircraft taking off or landing on the newer runway would generate Ldn noise levels of more than 60 dBA in areas currently unaffected by aircraft noise. Noise contours showing projected noise levels are shown in Figure N-5.

## C. NOISE FROM THE HELIPORT

As discussed in the preceding section, there are a number of factors which influence noise levels from aircraft, including the type of aircraft engine, and the presence of physical barriers.

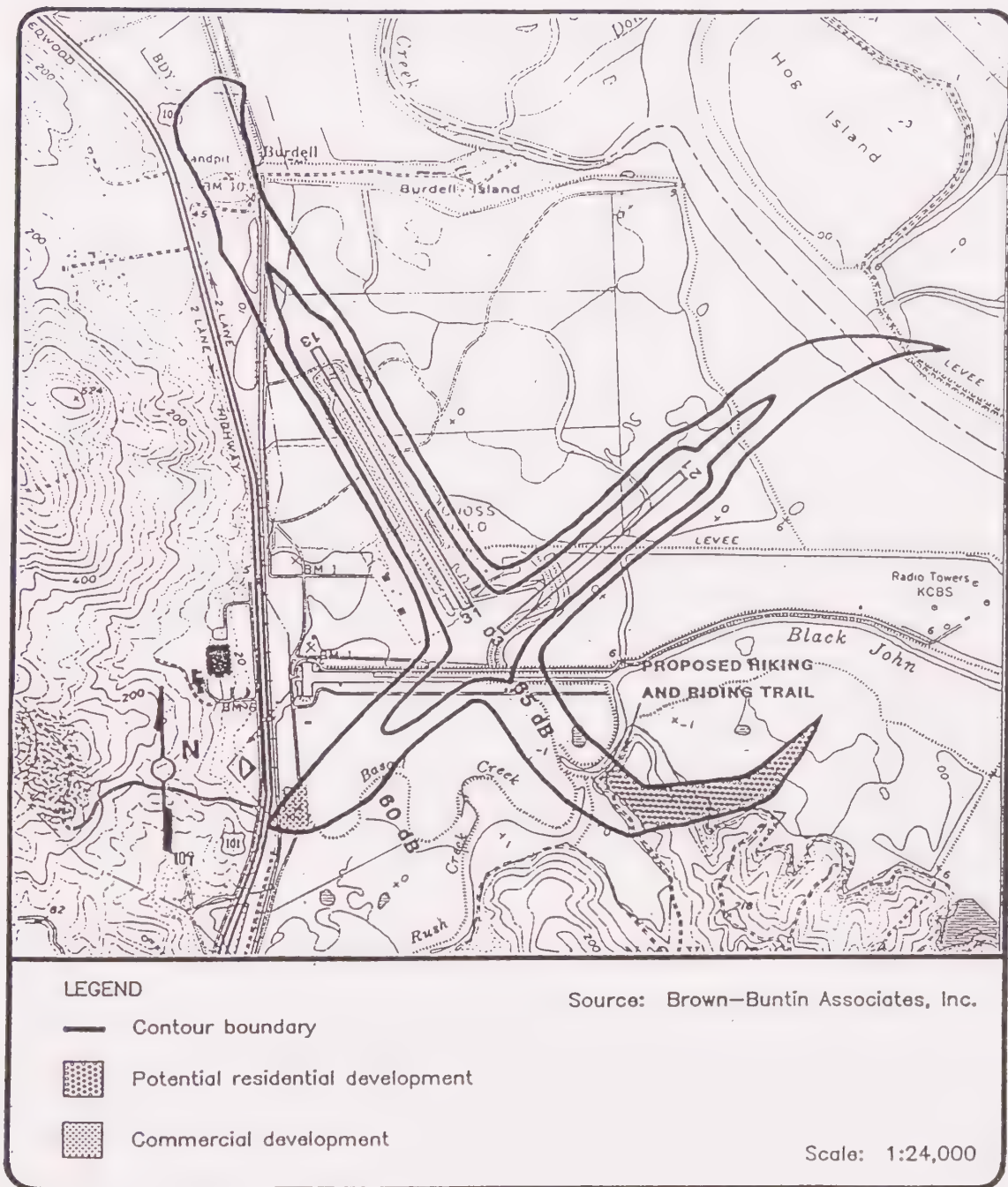
Figure N-4. Existing Noise Contours  
for the Airport at Gness Field, 1986



Source: Cortright & Seibold, 1988, Draft Environmental Impact Report/Environmental Assessment: Marin County (Gness Field) Airport, p. 6.42.



Figure N-5. Projected Future Noise Contours  
for the Airport at Gness Field 2006



Source: Cortright & Seibold, 1988, Draft Environmental Impact Report/Environmental Assessment: Marin County (Gness Field) Airport, p. 6.42.



### 1. Existing Noise Levels at the Heliport Site

Noise levels at the commercial heliport on Richardson Bay are shown in Technical Report #3 of the Noise Element. The Technical Report indicates approximately 25 helicopter takeoffs and landings per week at the Richardson Bay Heliport<sup>2</sup>.

Measurements were made at four sites between September 23, 1987, and September 25, 1987. The data collection sites were the four residential developments nearest the heliport: the houseboats located off the end of Pohono Street, the Marin Headlands development, the houseboats in the vicinity of Gate 6 Marina, and the single-family homes on Strawberry Point. Figure N-6 gives noise contours of the heliport site based on the noise measurements. The contours show locations subject to Ldn noise exposure levels of 55 dBA and 60 dBA.

### 2. Future Noise Levels at the Heliport Site

The operators of the heliport do not expect a significant increase in the number of takeoffs or landings from the heliport site<sup>3</sup>. Therefore, the noise contours shown in Figure N-6 are not likely to change significantly in the future.

## D. NOISE FROM THE RAILROAD

The most significant noise problem associated with trains are from the engine and horn. Noise generated by the wheels of railroad cars passing over joints between sections of railroad ties<sup>4</sup> and warning signals at grade crossings also contribute to noise levels along railroad lines.

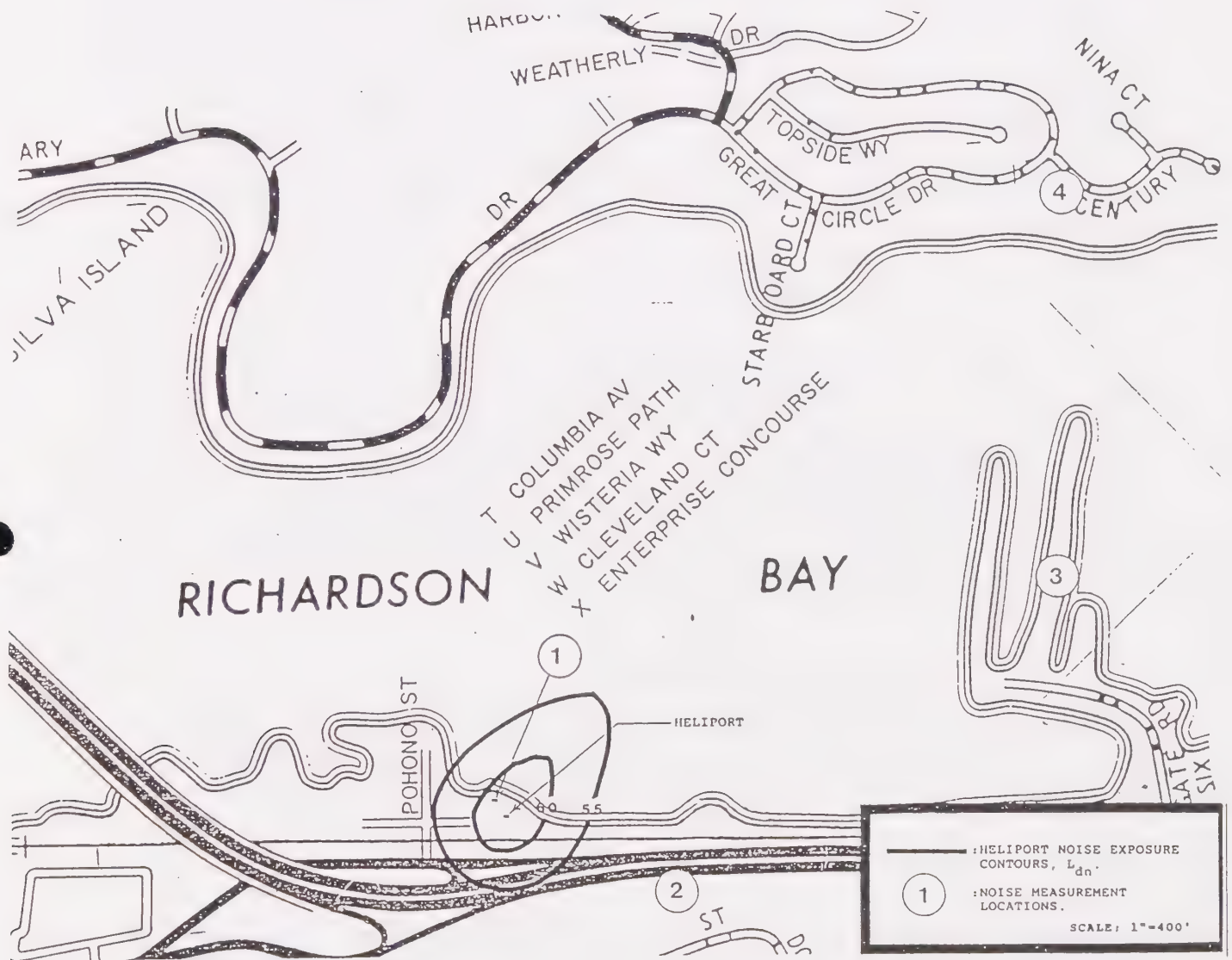
### 1. Existing Noise Levels Along the Northwestern Pacific Railroad Tracks

There are only two trains passing through Novato each day. The joints between the tracks were formerly bolted together, whereas they are now welded together. The new joints provide a smoother transition between sections of track, reducing the amount of noise generated by the wheels of trains as they pass over these joints<sup>5</sup>. The noise of trains may be intrusive in residential sleeping areas.

### 2. Future Noise Levels Along the Northwestern Pacific Railroad Right of Way

In the future, the Northwest Pacific Railroad transitway may be an additional source of noise within the County. The three types of vehicles that could be used along transitway are diesel buses, electric light rail trains, and diesel-powered trains. The vehicle types have significantly different noise generation characteristics.

Figure N-6. Existing Noise Contours for the Heliport



Source: Illingworth & Rodkin, 1987, Preparation of General Plan Noise Exposure Contours for the Commercial Heliport Located on Richardson Bay in Marin County, p. 8.

Diesel-powered trains are the loudest. Moving at an average speed of 45 to 50 miles per hour, diesel-powered trains generate noise levels of 88-93 dBA at a distance of 50 feet, while diesel buses and light rail trains typically generate noise levels of 76 to 85 dBA at the same distance. Given the proximity of some residential uses, potentially significant "peak" noise problems may arise with any of these types of vehicles along the transitway.

As of August, 1991, there is an insufficient amount of information to identify noise contours for future transit operations along the Northwest Pacific railroad right of way. Noise contours could be identified only after the type of vehicle to be run along the railway is selected. The Element should be amended at that time to include noise contours for the project.

## E. NOISE LEVELS FROM CONSTRUCTION

Construction of new buildings can also generate excessive noise levels. Figure N-7 shows noise levels of equipment used in construction. Air compressors can be as loud as 85 dBA, saws can be over 90 dBA, and trucks can create noise levels of 95 dBA. Noise problems from construction activity are especially acute in quiet areas, and during quiet periods of the day, such as between the hours of 7:00 p.m. and 7:00 a.m. Other factors which influence the degree of noise exposure include the topography of the site and its surroundings, the distance between the construction sites and the receiver, and the access route to the construction site.

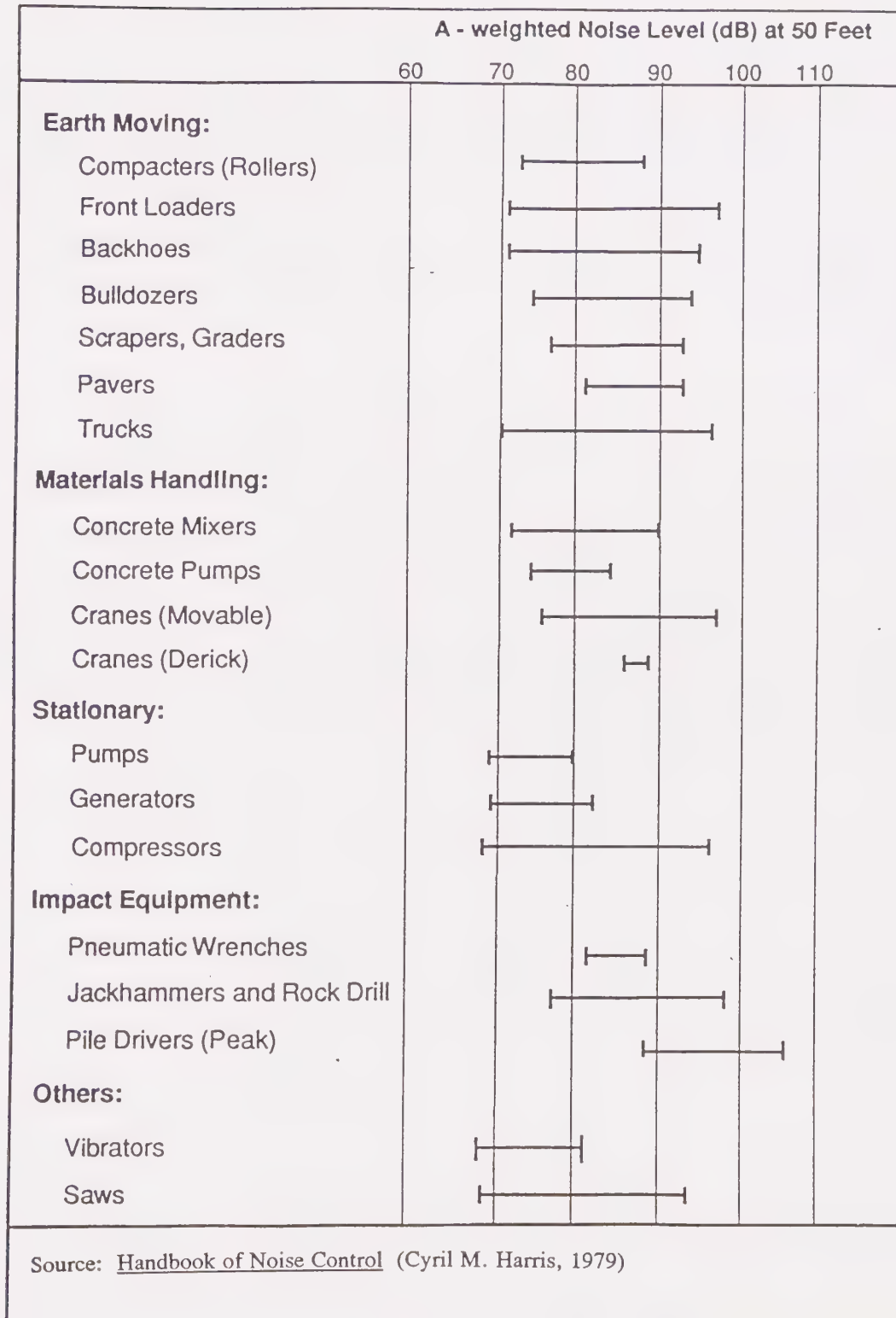
### 1. Existing Levels of Noise from Construction

Noise from construction activities is the most prevalent source of noise-related complaints filed with the County Sheriff's Department<sup>6</sup>. County Planning staff also reviews and refers a number of complaints related to construction noise each year.

### 2. Future Noise Levels from Construction Activity

Programs contained in this Element are designed to minimize the number of complaints due to excessive construction noise levels. For example, implementation of Program N-1.5 restricts the hours of construction to times of the day during which noise sensitive activities do not normally occur.

Figure N-7. Construction Equipment Noise Level Ranges





#### F. NOISE FROM OTHER STATIONARY SOURCES

Other stationary sources of noise besides construction activity include: industrial air conditioning units, large scale refrigerators, and electric generators. Noise levels from these sources fluctuate widely depending on a variety of factors including: the type of noise source, the distance between the noise source and the receiver, and the presence of physical barriers. For this reason, it is inappropriate to identify noise contours for these stationary sources. Programs in this element are designed to minimize future noise impacts from stationary sources such as air conditioning units, refrigerators, and electric generators.

#### G. NOISE STANDARDS FOR DEVELOPMENT

The Guidelines for the Preparation and Content of the Noise Element of The General Plan includes a table of land use compatibility for Community Noise Environments which is reproduced as Table N-1. This figure provides guidance for appropriate land uses at various levels of noise exposure. The County has decided that a Ldn of 60 decibels is the outdoor noise level in residential areas most appropriate for the protection of public health and welfare. In specific local situations, attitudes and conditions may make a lower level desirable. This Element recommends an acoustical analysis for all projects which require master plans, design review, or use permits located in areas above a Ldn of 60 decibels.

## VII. OBJECTIVES, POLICIES AND PROGRAMS

**Objective N-1. Protection From Excessive Noise Levels.** To site and design new development projects in a manner that minimizes the exposure of residents and workers to excessive levels of noise.

**Policy N-1.1**                      **Establish Noise Level Guidelines.** The County shall establish noise level guidelines to direct the siting, design, and insulation of new commercial and residential development.

**Program N-1.1a**                      Noise Guidelines for New Projects. The table of noise guidelines entitled "Land Use Compatibility for Community Noise Environments" shown in Figure N-1, and the noise contours in shown in Appendix N-1 shall be used as a guide for determining the appropriate type of new development and its relation to ambient noise levels.

New residential development in areas of greater than 60 dBA outdoor Ldn shall have an acoustical analysis performed to determine the appropriate mitigation necessary to meet an interior noise level standard of 45 dBA. The threshold for performing an acoustical analysis shall be 65 dBA outdoor Ldn for office and retail commercial development and 70 dBA outdoor Ldn for industrial commercial development. In planned unit developments of mixed uses, the threshold for performing an acoustical analysis shall be the lowest Ldn corresponding to the land uses: 60 dBA if residential development is included; 65 dBA if office or retail (but no residential) is included. The analysis shall determine ambient noise level conditions and the mitigations necessary to minimize the exposure of residents and/or workers to excessive levels of noise.

**Policy N-1.2**                      **Design and Insulate New Projects To Minimize Their Exposure to Excessive Noise Levels.** New development projects shall be required to incorporate design elements and sound insulation features to meet acceptable interior and outdoor noise level guidelines.

**Program N-1.2a**      Use the CEQA Process and Discretionary Review to Minimize Exposure to Excessive Noise Levels. Both CEQA and discretionary review of new development shall ensure that new development is protected from excessive noise levels. The table entitled "Land Use Compatibility for Community Noise Environments" sets thresholds for acoustical analysis and mitigation. Potential noise impacts and mitigation measures shall be evaluated via environmental review, master plans, design review, and use permits.

**Policy N-1.3**      **Minimize Noise Impacts From Possible Future Transitway.** If a transitway is developed along the Northwestern Pacific right-of-way, noise impacts of transit vehicles on existing development should be minimized.

**Program N-1.3a**      Quantify Noise Levels From Possible Future Transitway. When sufficient information exists to quantify noise levels generated by vehicles traveling along the Northwestern Pacific right-of-way, the noise contours should be incorporated into this Element.

**Program N-1.3b**      Develop Mitigation Measures to Minimize Impacts of Possible Future Transitway. Based on information generated through implementation of Program N-1.3a above, mitigation measures shall be developed to ensure that existing developed areas are not subject to excessive noise levels from the proposed transitway.

**Objective N-2. Maintain Acceptable Noise Levels in Existing Developed Areas.**  
To ensure that noise levels shall be maintained at acceptable levels within existing residential neighborhoods and commercial and industrial areas.

**Policy N-2.1**      **Maintain Acceptable Noise Levels in Developed Residential Areas.** Outdoor noise levels within developed residential areas should not exceed 60 dBA Ldn. If the existing noise level is greater than 60 dBA Ldn, new development should not increase the ambient day-night average sound level (Ldn) beyond the property line by more than 3 dBA Ldn. In areas where the existing noise level is less than 55 dBA Ldn, new development shall not raise the Ldn by more than 5 dBA Ldn.

**Program N-2.1a**

**Permit Requirements for New Structures in Residential Areas.**

Conditions of approval for projects which require use permits or design review should ensure that new construction, or additions and remodeling of existing structures, will not cause noise levels to exceed 60 dBA Ldn on neighboring, legally developed residential properties. If ambient Ldn is 60 dBA or greater, the new use should not increase ambient Ldn by more than 3 dBA measured at the property line. If ambient Ldn is less than 60 dBA, the new use shall not increase ambient Ldn by more than 5 dBA measured at the property line.

**Policy N-2.2**

**Preserve Acceptable Noise Levels in Developed**

**Commercial Areas.** Outdoor noise levels in developed commercial areas should not exceed 65 dBA Ldn. If the existing noise level is greater than 60 dBA Ldn, new development should not increase the ambient day-night average sound level (Ldn) beyond the property line by more than 5 dBA Ldn.

**Program N-2.2a**

**Permit Requirements for New Structures in Commercial**

**Areas.** Conditions of approval for projects which require use permits or design review should ensure that new construction, or additions and remodeling of existing structures, will not cause noise levels to exceed 65 dBA Ldn on neighboring, legally developed commercial properties. If ambient Ldn is 65 dBA or greater, the new use should not increase ambient Ldn by more than 5 dBA measured at the property line.

**Policy N-2.3**

**Preserve Acceptable Noise Levels in Developed Industrial**

**Areas.** Noise levels in developed industrial areas should not exceed 70 dBA Ldn. If the existing noise level is greater than 70 dBA Ldn, new development should not increase the ambient day-night average sound level (Ldn) beyond the property line by more than 5 dBA Ldn.



**Program N-2.3a**

Permit Requirements for New Structures in Industrial Areas. Conditions of approval for projects which require use permits or design review should ensure that new construction, including additions and remodeling of existing structures, will not cause noise levels to exceed 70 dBA Ldn on neighboring, legally developed industrial properties. If ambient Ldn is 70 dBA or greater, the new use should not increase ambient Ldn by more than 5 dBA measured at the property line.

**Policy N-2.4**

**Preserve Acceptable Noise Levels in Areas With Existing Public and Institutional Uses.** Noise levels in areas with public or institutional uses should not exceed 60 dBA Ldn. If the existing noise level is greater than 60 dBA Ldn, new development should not increase the ambient day-night average sound level (Ldn) beyond the property line by more than 3 dBA Ldn.

**Program N-2.4a**

Permit Requirements for New Structures Near Existing Public or Institutional Uses. Conditions of approval for projects which require use permits or design review should ensure that new construction, or additions and remodeling of existing structures, will not cause noise levels to increase to 60 dBA Ldn on neighboring properties with permitted public or institutional uses. If ambient Ldn is 60 dBA or greater, the new use should not increase ambient Ldn by more than 3 dBA measured at the property line.

**Policy N-2.5**

**Minimize Impacts From Excessive Noise Levels Due to Construction Activity.** During all phases of construction, actions should be undertaken to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity.

**Program N-2.5a**

Limit Construction Hours. Construction-related activities involving the use of machinery, power tools, or hammering, should be limited to normal work hours, 7:00 a.m. to 6:00 p.m., Mondays through Saturdays, unless it is shown that such activity will not generate excessive noise levels in neighboring, legally developed areas.

**Policy N-2.6**

**Minimize Noise Impacts from Temporary Land Uses.** The permit review process for land uses of a temporary nature, such as fairs or exhibits, should include mitigation measures to minimize noise impacts on surrounding areas. Mitigation measures should bring the Ldn from the temporary use in conformance with the noise level guidelines for nearby land uses.

**Policy N-2.7**

**Coordinate With Other Public Agencies.** The County shall work with other public agencies to address both existing and potential noise impacts resulting from public agency activities. The County shall cooperate with other public agencies in determining the appropriate mitigation measures necessary to meet County noise guidelines.

---

**NOTES**

<sup>1</sup> The California Department of Transportation Aeronautics division uses the "Community Noise Equivalent Level" (CNEL) system of noise measurement, instead of the "Day Night Average Sound Level" (Ldn) system used by federal agencies. There is very little difference between the two measuring systems; calculations of CNEL and Ldn from the same data generally result in a difference of less than 0.7 dB. Thus, for the purposes of this report, CNEL values and Ldn values are interchangeable.

<sup>2</sup> Illingworth and Rodkin, Inc., 1987, Preparation of General Plan Noise Exposure Contours for the Commercial Heliport Located on Richardson Bay in Marin County, p. 8.

<sup>3</sup> Telephone conversation with Commodore Helicopter operations representative, February 25, 1991.

<sup>4</sup> Phone conversation with Robert McLosky, Operator for the Southern Pacific Transportation Company, September 6, 1990.

<sup>5</sup> Ibid.

<sup>6</sup> Interview with Lieutenant Donovan of the Marin County Sheriff's Department, August 30, 1990.



**APPENDIX N-1. EXISTING AND PROJECTED  
FUTURE TRAFFIC NOISE LEVELS**





Table A-1 on the following page shows noise contours in tabular form for Highway 101 and selected arterials in the unincorporated area. Using average daily vehicle volumes for 1987 and buildout, the table shows the distance in feet from the street centerline to a specific noise decibel contour (e.g. 60, 65, 70, etc). The decibels are "A weighted" day-night average sound levels (dBA Ldn).

The table also contains the:

Present (1987) and future average daily traffic volumes under the column labeled "ADT;"

Posted speed limits for automobiles (AU), medium weight trucks (MT) and heavy trucks (HT);

Percentage of average daily traffic represented by medium-weight (MT) and heavy-weight (HT) truck traffic; and

Noise level at fifty feet from the street centerline, an approximation of the edge of the street right of way.

The model which calculated the noise contours does not take into account topographical characteristics of the land along the road segments nor the existence of any buildings or landscaping. The purpose of the noise contours is to provide a conservative estimate of where an acoustical analysis should be performed for new development, depending on the thresholds for different types of land use.



TABLE A1  
Existing (1987) and Projected Future (2005)  
TRAFFIC NOISE LEVELS

|     |                               | SPEED  |    |    | TRUCK% |     | CONTOUR DISTANCE |        |    |    |    |     |     |
|-----|-------------------------------|--------|----|----|--------|-----|------------------|--------|----|----|----|-----|-----|
|     |                               | =====  |    |    | =====  |     | Ldn<br>50'       | (FEET) |    |    |    |     |     |
| ADT |                               | AU     | MT | HT | MT     | HT  |                  | 80     | 75 | 70 | 65 | 60  |     |
| 1   | ALAMEDA DEL PRADO SOUTH       |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: IGNACIO BLVD.           |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 6,941  | 25 | 25 | 25     | 3.1 | 0.9              | 61     | 0  | 0  | 0  | 0   | 71  |
|     | FUTURE                        | 4,420  |    |    |        |     |                  | 60     | 0  | 0  | 0  | 0   | 45  |
|     | TO: HIGHWAY 101 RAMP          |        |    |    |        |     |                  |        |    |    |    |     |     |
| 2   | ATHERTON AVE.                 |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: OLIVE AVE.              |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 3,453  | 40 | 40 | 40     | 3.1 | 0.9              | 63     | 0  | 0  | 0  | 31  | 99  |
|     | FUTURE                        | 6,623  |    |    |        |     |                  | 66     | 0  | 0  | 0  | 60  | 153 |
|     | TO: BUGEIA AVE.               |        |    |    |        |     |                  |        |    |    |    |     |     |
| 3   | BEL MARIN KEYS BLVD WEST      |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: MONTEGO KEY             |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 4,815  | 35 | 35 | 35     | 3.1 | 0.9              | 63     | 0  | 0  | 0  | 32  | 101 |
|     | FUTURE                        | 9,791  |    |    |        |     |                  | 66     | 0  | 0  | 0  | 65  | 162 |
|     | TO: HAMILTON DRIVE            |        |    |    |        |     |                  |        |    |    |    |     |     |
| 4   | BON AIR ROAD                  |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: SOUTH ELISEO DR.        |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 10,201 | 25 | 25 | 25     | 3.1 | 0.9              | 63     | 0  | 0  | 0  | 33  | 102 |
|     | FUTURE                        | 9,393  |    |    |        |     |                  | 63     | 0  | 0  | 0  | 30  | 96  |
|     | TO: SIR FRANCIS DRAKE BLVD.   |        |    |    |        |     |                  |        |    |    |    |     |     |
| 5   | BUTTERFIELD ROAD              |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: DEER HOLLOW ROAD        |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 7,511  | 30 | 30 | 30     | 3.1 | 0.9              | 63     | 0  | 0  | 0  | 35  | 108 |
|     | FUTURE                        | 7,025  |    |    |        |     |                  | 63     | 0  | 0  | 0  | 33  | 103 |
|     | TO: LEGEND ROAD               |        |    |    |        |     |                  |        |    |    |    |     |     |
| 6   | COLLEGE AVE.                  |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: SIR FRANCIS DRAKE BLVD. |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 12,891 | 25 | 25 | 25     | 3.1 | 0.9              | 64     | 0  | 0  | 0  | 41  | 120 |
|     | FUTURE                        | 11,712 |    |    |        |     |                  | 64     | 0  | 0  | 0  | 38  | 112 |
|     | TO: KENT AVE.                 |        |    |    |        |     |                  |        |    |    |    |     |     |
| 7   | HIGHWAY 1                     |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: ALMONTE BLVD.           |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 26,476 | 35 | 35 | 35     | 3.1 | 0.9              | 70     | 0  | 0  | 56 | 146 | 314 |
|     | FUTURE                        | 27,000 |    |    |        |     |                  | 71     | 0  | 0  | 57 | 148 | 318 |
|     | TO: HIGHWAY 101               |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | FROM: MARSHALL-PETALUMA RD    |        |    |    |        |     |                  |        |    |    |    |     |     |
|     | PRESENT                       | 2,450  | 55 | 55 | 55     | 3.1 | 0.9              | 65     | 0  | 0  | 0  | 48  | 133 |
|     | FUTURE                        | 2,678  |    |    |        |     |                  | 65     | 0  | 0  | 0  | 53  | 141 |
|     | TO: POINT REYES-PETALUMA ROAD |        |    |    |        |     |                  |        |    |    |    |     |     |



|                                     |         | SPEED |    | TRUCK% |     | Ldn | CONTOUR DISTANCE<br>(FEET) |    |     |     |     |      |
|-------------------------------------|---------|-------|----|--------|-----|-----|----------------------------|----|-----|-----|-----|------|
|                                     |         | ===== |    | =====  |     |     | 50'                        | 80 | 75  | 70  | 65  | 60   |
|                                     | ADT     | AU    | MT | HT     | MT  | HT  |                            |    |     |     |     |      |
| 7 HIGHWAY 1                         |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: OLEMA BOLINAS ROAD            |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 3,641   | 55    | 55 | 55     | 3.1 | 0.9 | 67                         | 0  | 0   | 0   | 72  | 173  |
| FUTURE                              | 4,228   |       |    |        |     |     | 67                         | 0  | 0   | 26  | 83  | 191  |
| TO: PANORAMIC HIGHWAY               |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: PANORAMIC HIGHWAY             |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 9,019   | 35    | 35 | 35     | 3.1 | 0.9 | 66                         | 0  | 0   | 0   | 60  | 153  |
| FUTURE                              | 9,970   |       |    |        |     |     | 66                         | 0  | 0   | 0   | 66  | 164  |
| TO: LORING AVE.                     |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: SIR FRANCIS DRAKE BLVD (WEST) |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 2,807   | 55    | 55 | 55     | 3.1 | 0.9 | 65                         | 0  | 0   | 0   | 55  | 145  |
| FUTURE                              | 3,174   |       |    |        |     |     | 66                         | 0  | 0   | 0   | 62  | 157  |
| TO: SIR FRANCIS DRAKE BLVD (EAST)   |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: WHITACKER BLUFF               |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 1,850   | 55    | 55 | 55     | 3.1 | 0.9 | 64                         | 0  | 0   | 0   | 36  | 110  |
| FUTURE                              | 2,003   |       |    |        |     |     | 64                         | 0  | 0   | 0   | 39  | 116  |
| TO: DILLON BEACH                    |         |       |    |        |     |     |                            |    |     |     |     |      |
| 8 HIGHWAY 101                       |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: GOLDEN GATE BRIDGE            |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 112,321 | 55    | 55 | 55     | 3.1 | 0.9 | 81                         | 70 | 170 | 366 | 788 | 1697 |
| FUTURE                              | 97,409  |       |    |        |     |     | 81                         | 61 | 154 | 333 | 716 | 1544 |
| TO: SAUSILITO LATERAL               |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: BRIDGEWAY BLVD                |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 142,000 | 55    | 55 | 55     | 3.1 | 0.9 | 82                         | 88 | 198 | 428 | 921 | 1985 |
| FUTURE                              | 128,398 |       |    |        |     |     | 82                         | 80 | 186 | 400 | 861 | 1856 |
| TO: SHORELINE HIGHWAY               |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: SONOMA COUNTY LINE            |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 64,000  | 55    | 55 | 55     | 3.1 | 0.9 | 79                         | 40 | 117 | 251 | 541 | 1167 |
| FUTURE                              | 62,492  |       |    |        |     |     | 79                         | 39 | 115 | 247 | 533 | 1148 |
| TO: ATHERTON AVE.                   |         |       |    |        |     |     |                            |    |     |     |     |      |
| FROM: SHORELINE HIGHWAY             |         |       |    |        |     |     |                            |    |     |     |     |      |
| PRESENT                             | 128,000 | 55    | 55 | 55     | 3.1 | 0.9 | 82                         | 80 | 185 | 399 | 860 | 1852 |
| FUTURE                              | 115,922 |       |    |        |     |     | 82                         | 72 | 173 | 373 | 805 | 1733 |
| TO: REDWOOD HIGHWAY FRONTAGE RD.    |         |       |    |        |     |     |                            |    |     |     |     |      |

|                                 |         |    |    | SPEED |       | TRUCK% |       | Ldn | CONTOUR DISTANCE<br>(FEET) |       |       |       |       |
|---------------------------------|---------|----|----|-------|-------|--------|-------|-----|----------------------------|-------|-------|-------|-------|
|                                 |         |    |    | ===== | ===== | =====  | ===== |     | =====                      | ===== | ===== | ===== | ===== |
|                                 | ADT     | AU | MT | HT    | MT    | HT     | 50'   |     | 80                         | 75    | 70    | 65    | 60    |
| 9 HIGHWAY 101 NORTH             |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: MILLER CREEK/ST VINCENT'S |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 126,000 | 55 | 55 | 55    | 3.1   | 0.9    | 82    | 78  | 183                        | 395   | 851   | 1832  |       |
| FUTURE                          | 119,943 |    |    |       |       |        | 82    | 75  | 177                        | 382   | 823   | 1773  |       |
| TO: ALAMEDA DEL PRADO           |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| 10 HIGHWAY 37                   |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: ATHERTON AVE.             |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 20,100  | 55 | 55 | 55    | 3.1   | 0.9    | 74    | 0   | 40                         | 116   | 250   | 539   |       |
| FUTURE                          | 31,851  |    |    |       |       |        | 76    | 0   | 63                         | 158   | 340   | 733   |       |
| TO: HARBOR DRIVE                |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| 11 HIGHWAY 580                  |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: SAN QUENTIN               |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 45,000  | 55 | 55 | 55    | 3.1   | 0.9    | 77    | 28  | 89                         | 199   | 428   | 922   |       |
| FUTURE                          | 49,724  |    |    |       |       |        | 78    | 31  | 98                         | 212   | 458   | 986   |       |
| TO: BELLAN BLVD.                |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| 12 LUCAS VALLEY ROAD            |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: LAS GALLINAS AVE.         |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 11,924  | 45 | 45 | 45    | 3.1   | 0.9    | 70    | 0   | 0                          | 45    | 127   | 273   |       |
| FUTURE                          | 11,900  |    |    |       |       |        | 70    | 0   | 0                          | 45    | 127   | 273   |       |
| TO: HIGHWAY 101                 |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| 13 MARSHALL - PETALUMA ROAD     |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: SHORELINE ROAD            |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 315     | 45 | 45 | 45    | 3.1   | 0.9    | 54    | 0   | 0                          | 0     | 0     | 0     |       |
| FUTURE                          | 393     |    |    |       |       |        | 55    | 0   | 0                          | 0     | 0     | 0     |       |
| TO: HICKS VALLEY ROAD           |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| 14 NICASIO VALLEY ROAD          |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: PT. REYES-PETALUMA RD.    |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 3,540   | 45 | 45 | 45    | 3.1   | 0.9    | 64    | 0   | 0                          | 0     | 42    | 122   |       |
| FUTURE                          | 6,167   |    |    |       |       |        | 67    | 0   | 0                          | 0     | 74    | 176   |       |
| TO: LUCAS VALLEY ROAD           |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: SIR FRANCIS DRAKE BLVD    |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 2,578   | 45 | 45 | 45    | 3.1   | 0.9    | 63    | 0   | 0                          | 0     | 31    | 98    |       |
| FUTURE                          | 3,393   |    |    |       |       |        | 64    | 0   | 0                          | 0     | 41    | 118   |       |
| TO: LUCAS VALLEY ROAD           |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| 15 NORTH SAN PEDRO ROAD         |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| FROM: CIVIC CENTER DRIVE        |         |    |    |       |       |        |       |     |                            |       |       |       |       |
| PRESENT                         | 14,234  | 25 | 25 | 25    | 1.4   | 0.4    | 63    | 0   | 0                          | 0     | 33    | 104   |       |
| FUTURE                          | 17,848  |    |    |       |       |        | 64    | 0   | 0                          | 0     | 42    | 121   |       |
| TO: WOODOAKS DR.                |         |    |    |       |       |        |       |     |                            |       |       |       |       |

|  |  |  |  |  |  |  |  |  |  |  |  | CONTOUR DISTANCE |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|------------------|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |  | (FEET)           |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | =====            |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |                  |  |  |  |  |

|    |                              | SPEED  |    |    | TRUCK% |     | Ldn | CONTOUR DISTANCE<br>(FEET) |     |    |    |     |     |    |
|----|------------------------------|--------|----|----|--------|-----|-----|----------------------------|-----|----|----|-----|-----|----|
|    |                              | ADT    | AU | MT | HT     | MT  |     | HT                         | 50' | 80 | 75 | 70  | 65  | 60 |
| 20 | SIR FRANCIS DRAKE BLVD.      |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: SAN QUENTIN            |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 19,742 | 45 | 45 | 45     | 3.1 | 0.9 | 72                         | 0   | 0  | 75 | 177 | 382 |    |
|    | FUTURE                       | 21,919 |    |    |        |     |     | 72                         | 0   | 26 | 83 | 190 | 410 |    |
|    | TO: LARKSPUR LANDING CIRCLE  |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 21 | TIBURON BLVD EAST            |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: REDWOOD FRONTAGE ROAD  |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 16,063 | 45 | 45 | 45     | 3.1 | 0.9 | 71                         | 0   | 0  | 61 | 155 | 333 |    |
|    | FUTURE                       | 15,065 |    |    |        |     |     | 71                         | 0   | 0  | 57 | 148 | 319 |    |
|    | TO: STRAWBERRY DRIVE         |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 22 | WOLFE GRADE                  |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: SIR FRANCIS DRAKE BLVD |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 13,417 | 35 | 35 | 35     | 3.1 | 0.9 | 67                         | 0   | 0  | 28 | 89  | 199 |    |
|    | FUTURE                       | 13,625 |    |    |        |     |     | 68                         | 0   | 0  | 29 | 90  | 201 |    |
|    | TO: SAN RAFAEL AVE.          |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 23 | ALMONTE BLVD.                |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: SHORELINE HIGHWAY      |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 20,379 | 35 | 35 | 35     | 3.1 | 0.9 | 69                         | 0   | 0  | 43 | 122 | 263 |    |
|    | FUTURE                       | 20,180 |    |    |        |     |     | 69                         | 0   | 0  | 42 | 121 | 262 |    |
|    | TO: MILLER AVE.              |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 24 | LAS GALLINAS AVE.            |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: LUCAS VALLEY RD.       |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 5,367  | 25 | 25 | 25     | 3.1 | 0.9 | 60                         | 0   | 0  | 0  | 0   | 55  |    |
|    | FUTURE                       | 4,607  |    |    |        |     |     | 60                         | 0   | 0  | 0  | 0   | 47  |    |
|    | TO: MILLER CREEK             |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 25 | LUCAS VALLEY ROAD            |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: LAS GALLINAS           |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 10,493 | 45 | 45 | 45     | 3.1 | 0.9 | 69                         | 0   | 0  | 40 | 116 | 251 |    |
|    | FUTURE                       | 11,419 |    |    |        |     |     | 69                         | 0   | 0  | 43 | 123 | 265 |    |
|    | TO: IDYLBERRY ROAD           |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 26 | MILLER CREEK RD.             |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: MARINWOOD AVE.         |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 7,420  | 25 | 25 | 25     | 3.1 | 0.9 | 62                         | 0   | 0  | 0  | 0   | 75  |    |
|    | FUTURE                       | 10,793 |    |    |        |     |     | 63                         | 0   | 0  | 0  | 35  | 106 |    |
|    | TO: LAS GALLINAS AVE.        |        |    |    |        |     |     |                            |     |    |    |     |     |    |
| 27 | N. SAN PEDRO RD.             |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | FROM: CIVIC CENTER DRIVE     |        |    |    |        |     |     |                            |     |    |    |     |     |    |
|    | PRESENT                      | 8,252  | 25 | 25 | 25     | 1.4 | 0.4 | 61                         | 0   | 0  | 0  | 0   | 61  |    |
|    | FUTURE                       | 10,797 |    |    |        |     |     | 62                         | 0   | 0  | 0  | 25  | 80  |    |
|    | TO: MEADOW DRIVE             |        |    |    |        |     |     |                            |     |    |    |     |     |    |





**ENVIRONMENTAL HAZARDS  
ELEMENT**



# ENVIRONMENTAL HAZARDS ELEMENT

## TABLE OF CONTENTS

|                                                              |    |
|--------------------------------------------------------------|----|
| I. INTRODUCTION.....                                         | 1  |
| A. LEGAL AUTHORITY .....                                     | 1  |
| B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS.....          | 1  |
| C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS.....         | 2  |
| D. ORGANIZATION OF THE ELEMENT .....                         | 2  |
| II. EXISTING CONDITIONS .....                                | 3  |
| A. SEISMIC HAZARDS.....                                      | 3  |
| 1. Ground Rupture.....                                       | 3  |
| 2. Ground Shaking .....                                      | 5  |
| 3. Ground Failure.....                                       | 9  |
| 4. Tsunami/Seiche .....                                      | 9  |
| 5. Legislation and Regulations.....                          | 11 |
| B. GEOLOGIC HAZARDS .....                                    | 11 |
| 1. Landslides .....                                          | 11 |
| 2. Subsidence and Differential Settlement .....              | 14 |
| C. FLOOD HAZARDS .....                                       | 15 |
| 1. Watercourse Floods .....                                  | 15 |
| 2. Dam Inundation.....                                       | 17 |
| 3. Coastal Water Floods: Ocean and Bay .....                 | 17 |
| 4. Rise in Sea Level .....                                   | 17 |
| D. FIRE HAZARDS.....                                         | 19 |
| 1. Wildland Fires .....                                      | 19 |
| 2. Structural Fires .....                                    | 22 |
| 3. Fire Construction Standards .....                         | 22 |
| III. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS ..... | 24 |



## LIST OF FIGURES

|                                                                               |    |
|-------------------------------------------------------------------------------|----|
| EH-1. Fault Traces in Marin County .....                                      | 4  |
| EH-2. Areas Covered by Alquist-Priolo Special Studies Zone Requirements ..... | 6  |
| EH-3. Maximum Ground Shaking Intensity .....                                  | 7  |
| EH-4. Geologic Units Susceptible to Ground Shaking .....                      | 8  |
| EH-5. Liquefaction Susceptibility .....                                       | 10 |
| EH-6. Geology of Marin County .....                                           | 12 |
| EH-7. Marin County Flood Control Zones .....                                  | 16 |
| EH-8. Dam Failure Inundation Areas .....                                      | 18 |
| EH-9. Marin County Fire Districts .....                                       | 20 |
| EH-10. State Responsibility Areas (SRAs) .....                                | 21 |
| EH-11. The Time Temperature Curve .....                                       | 23 |

## I. INTRODUCTION

Marin County is characterized by a diversity of natural and man-made features which results in a wide range of environmental hazards. For example, steep slopes underlain with unstable soils create landslide risks; low-lying areas are susceptible to floods; dam inundation areas span many square miles; and the San Andreas fault runs through West Marin.

Many of the policies in the Environmental Hazards Element have been successfully implemented since its adoption in 1977. In 1988/89, the Element was updated to include current information and regulations.

A number of County agencies have programs for disaster mitigation and relief. These agencies include the County Office of Emergency Services, Public Works Department, Planning Department, and Fire Protection Districts.

The Countywide Plan focuses on minimizing the impact of an emergency situation through the implementation of policies and programs in the Environmental Hazards Element.

### A. LEGAL AUTHORITY

The Environmental Hazards Element fulfills the requirement for a "safety element" as described in the California Government Code Section 65302(g). This Section states that the General Plan shall include:

A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. It shall also address evacuation routes, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

### B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Environmental Hazards Element is related to other elements in the following manner:

*Community Development Element:* Designates land uses and densities in a manner which minimizes hazards to life and property.

*Community Facilities Element:* Discusses provision of critical emergency services, such as fire, and peakload water supply.

*Transportation Element:* Transportation facilities vital in the event of emergency, including: evacuation and access routes; transportation of supplies and equipment; public transportation used for post-emergency trips.

### C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

This element is based on three technical report studies:

Environmental Hazards Technical Report #1, Floods: Existing Conditions and Recent Studies

Environmental Hazards Technical Report #2, Fire Hazards: Existing Conditions

Environmental Hazards Technical Report #3, Seismic and Geologic Hazards in Marin County

Hazardous waste management hazards and mitigating policies and programs are detailed in the draft County Integrated Waste Management Plan. The Marin County Multihazard Plan (1988), prepared by the County Office of Emergency Services, coordinates actions of agencies in the event of a large-scale emergency. Necessary actions include establishment of command posts, evacuations, traffic control, transportation supplies and equipment, requests for mutual aid, public information including evacuation instructions and media announcements, and provisions for travel to return home.

### D. ORGANIZATION OF THE ELEMENT

This element identifies potential environmental hazards which are a consideration in land use decisions: seismicity, geology, fire, and floods. The document text and figures describe existing conditions in the county under each of these four categories. The element's policies, objectives, and implementation programs are designed to mitigate potentially hazardous conditions.

## II. EXISTING CONDITIONS

### A. SEISMIC HAZARDS

The San Andreas Fault runs through the western portion of Marin County and is the only known active fault in the county (see EH-1). Some geologic evidence indicates movement within the past 10,000 years on Burdell Mountain, the location of the only other local fault. The epicenter of the famous 1906 earthquake, estimated at a magnitude of 8.25 on the Richter scale, was in the vicinity of Olema in West Marin. Damage was severe along the San Andreas fault zone where settlement and buildings were often concentrated, multi-storied, or located on alluvium. Near the head of Tomales Bay, ground displacement was reported at 21 feet.

Seismic risk in Marin falls into four broad categories:

- Ground rupture and surface displacement
- Ground shaking
- Ground failure and related secondary effects
- Tsunami and seiche effects

The amount of damage sustained in an earthquake depends on the magnitude of the quake, location of the epicenter, geology of the area, and the amount and type of development in the area. Since the type and extent of damage varies, County policies must be tailored to local conditions.

#### 1. Ground Rupture

For the most part, ground rupture and surface displacement occur during moderate to great earthquakes (Richter 5.3-7.7+). The length of ground rupture and amount of displacement are a function of earthquake magnitude and the total length of the fault. Surface fault movement may be rapid and sudden, as with a major earthquake, or may be gradual and occur over an extended period of time.

Although ground displacement accounts for only a small percentage of all earthquake damage, buildings located directly on faults are in danger of experiencing significant damage. In 1972, the California legislature responded to this danger by adopting the Alquist-Priolo Geologic Hazard Zones Act. The Alquist-Priolo Act prohibits construction of new facilities for human occupancy which would be located on known traces of specified active faults, or within a minimum 50-foot distance of such traces. The Act requires a geologic study at the site of a proposed developments of four or more single-family houses falling within a fault zone. The 50-foot setback from a fault is determined by this study.



Figure EH-1. Fault Traces in Marin County

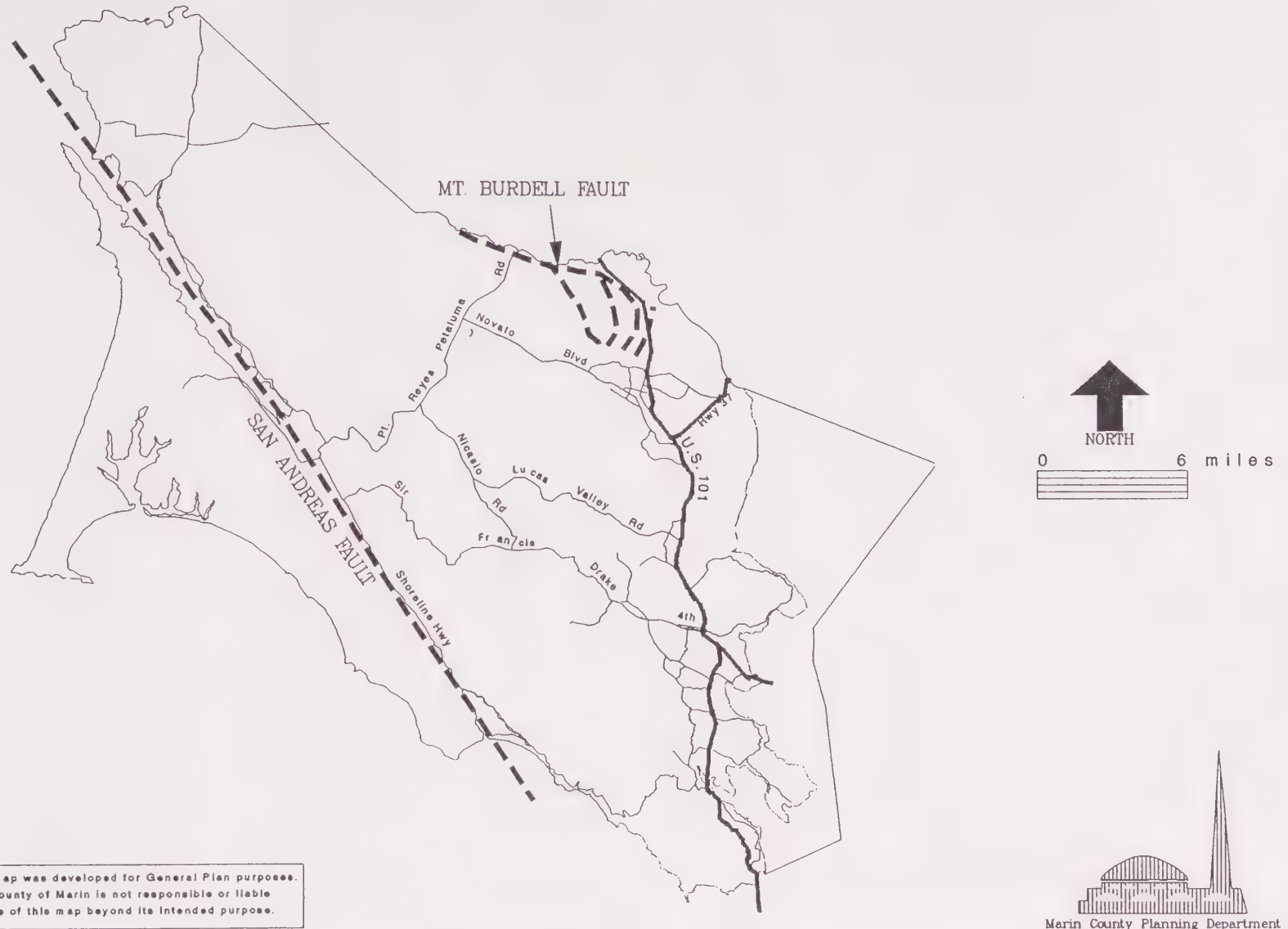


Figure EH-2 shows the general areas covered by the Alquist-Priolo Geologic Hazard Zones Act. Maps rendered in greater detail are available at the Marin County Planning Department.

The Department of Public Works reviews proposed projects to determine whether the site falls within an Alquist-Priolo Special Studies Zone. The Public Works Department has the authority to approve or deny a proposed project based upon geologic concerns. However, an applicant may appeal the Department's decision to the Board of Supervisors.

## 2. Ground Shaking

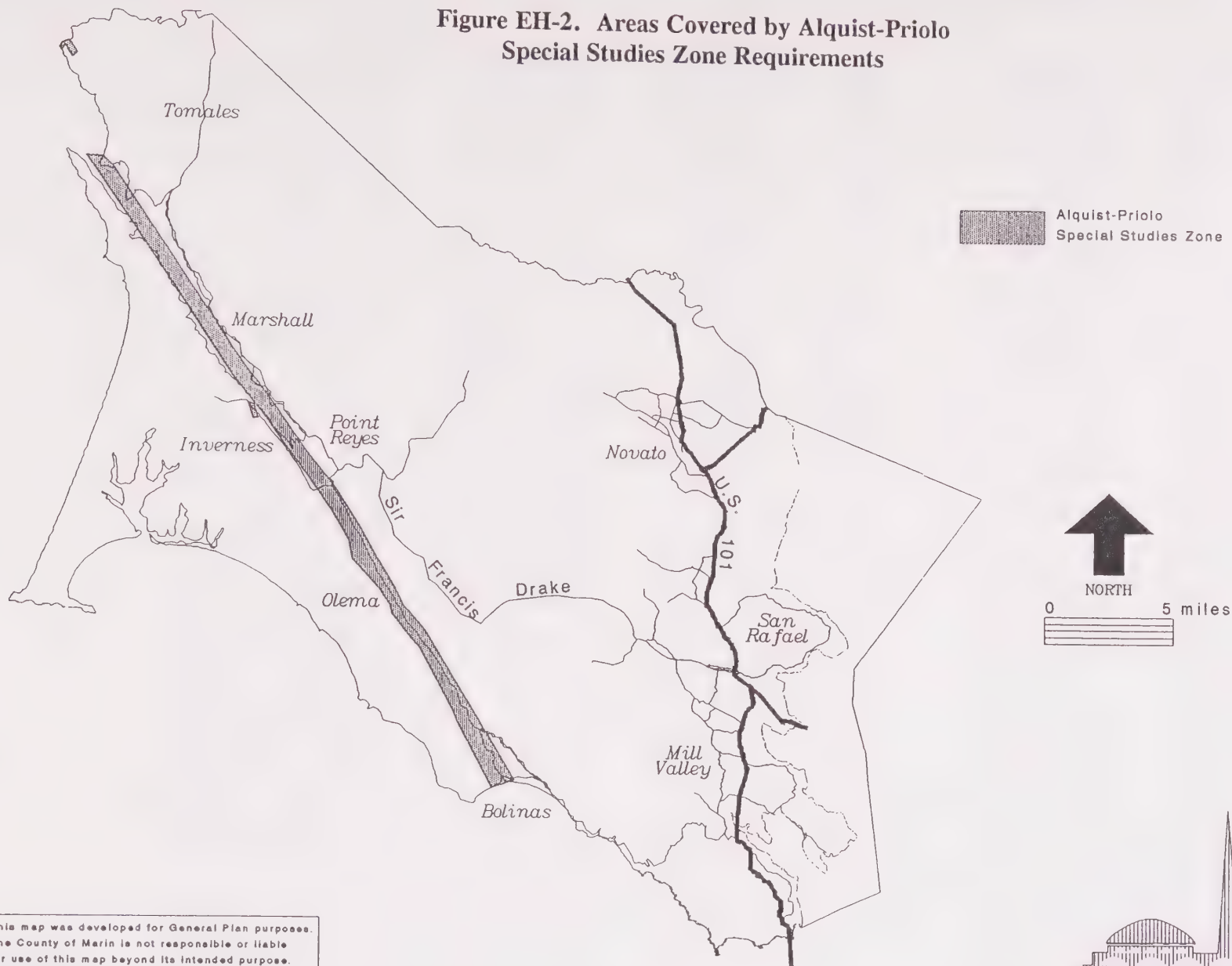
Ground shaking is the most significant factor contributing to human and economic loss, since shaking may trigger secondary hazards like fire and landslides.

It is important for a seismic risk evaluation to assess the geographic sphere and intensity of potential ground shaking. Unlike ground rupture, shaking can cause damage many miles from the fault. Figure EH-3 shows the maximum ground shaking intensity in Marin County and Figure EH-4 depicts the geologic units susceptible to ground shaking.

Evidence suggests that tall structures built on relatively soft saturated sediments experience the greatest damage from shaking. Structural integrity is a critical factor in assessing potential damage from shaking. Unreinforced masonry buildings are the construction type most susceptible to failure. More detailed information on the effect of an earthquake on different types of buildings can be found in the Environmental Hazards Technical Report #3, Seismic and Geologic Hazards in Marin County.

The County anticipates that secondary hazards caused by ground shaking in a major earthquake will actually cause the most damage to Marin County. For example, many streets traverse landslide deposits, and streets are the usual routes of underground utility lines. A landslide could block transportation routes, as well as rupturing water, gas and sewer lines. Ground shaking could also cause highway overpasses to collapse, crippling important transportation routes. Damage to dams and levees could cause flooding, although a large earthquake could completely rupture dams and release most of the retained reservoir waters.

**Figure EH-2. Areas Covered by Alquist-Priolo  
Special Studies Zone Requirements**



This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

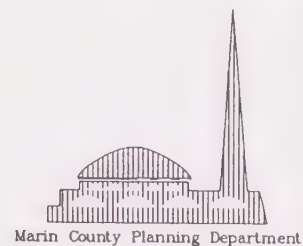
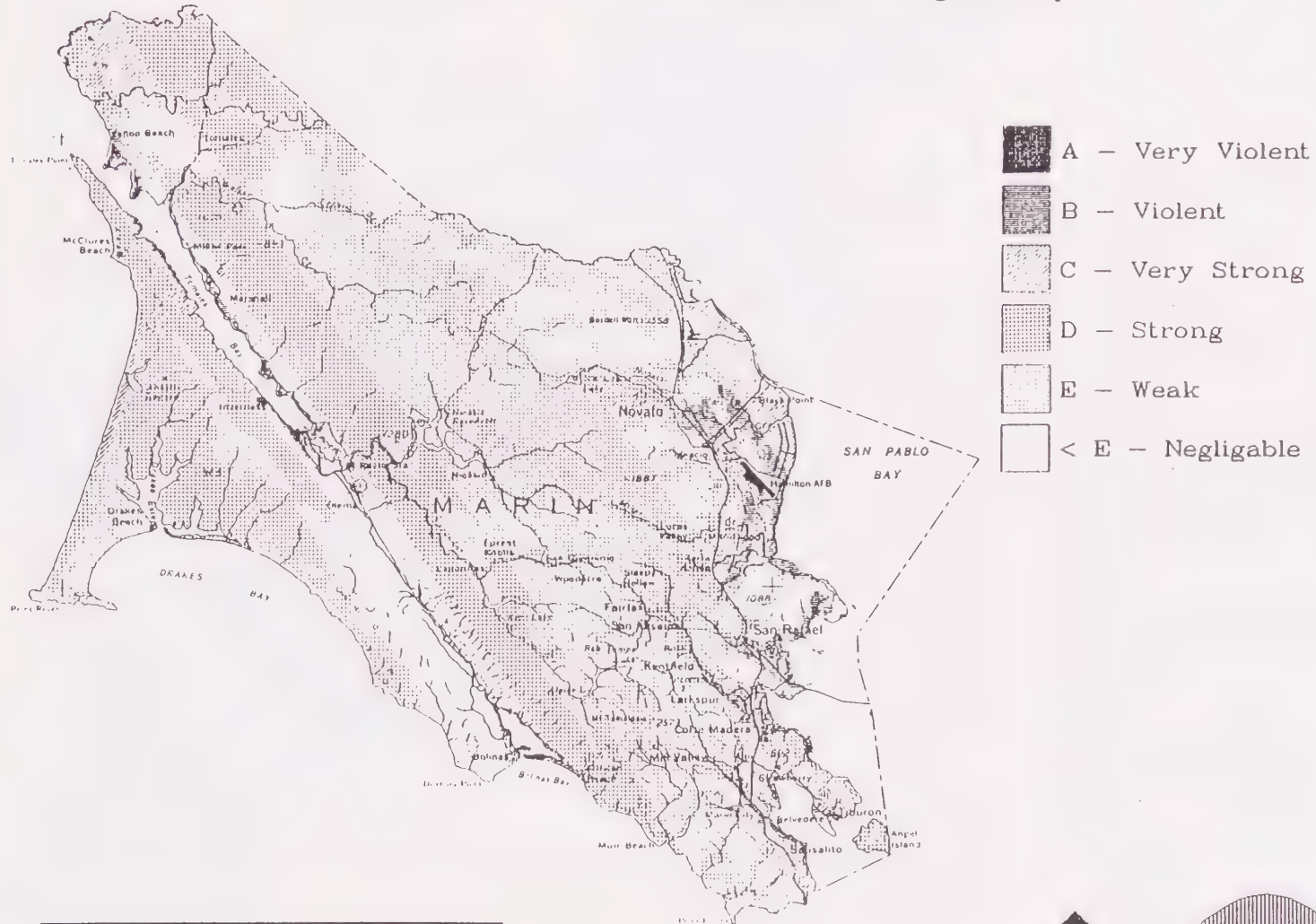


Figure EH-3. Maximum Ground Shaking Intensity



This map was developed for Countywide Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

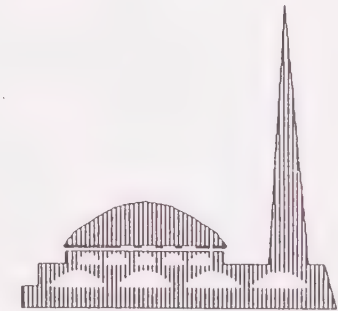
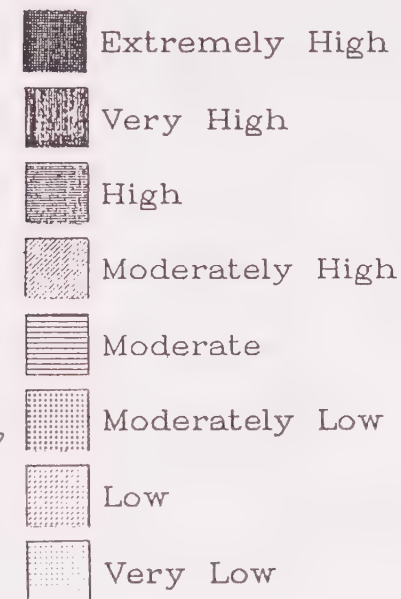


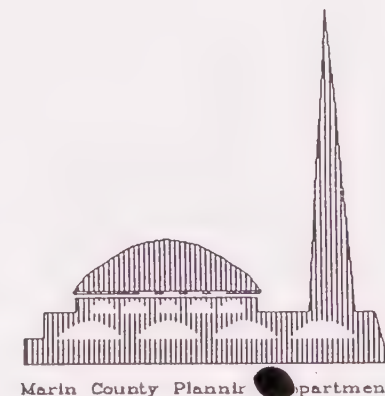


Figure EH-4. Geologic Units Susceptible to Ground Shaking

Level of Susceptibility:



This map was developed for Countywide Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.



### 3. Ground Failure

Types of ground failure include liquefaction, lateral spreading, landslides, and differential settlement. Landslides and differential settlement can occur independent of an earthquake and are discussed in the Section II.B.1 of this element. Liquefaction results when an earthquake transforms saturated, loose granular materials (silt, sand, or gravel) into a fluid-like state in which the solid particles are suspended, like quicksand. Water-saturated deposits are the most prone to liquefaction. On the other hand, clay is an important deterrent to liquefaction because it tends to bind sand together. Liquefaction-prone geologic materials, listed in order of decreasing susceptibility, are: artificial fill, sand, and alluvium. The areas in Marin County most susceptible to liquefaction are shown in Figure EH-5.

Lateral spreading is another type of ground failure which can be induced by an earthquake. Lateral spreading is caused by a loss of strength in fine-grained cohesive materials. It occurs most often in soft, saturated clays like bay mud. In the event of an earthquake, liquefaction and/or lateral spreading could weaken foundations, rendering bridges unsafe and overpasses unusable.

Earthquake-induced landslides generally occur in the same geologically unstable areas as landslides induced by other factors, and may be indistinguishable from slides precipitated by other events. The energy of an earthquake can act as a catalyst for landslides on unstable soils and rock that might otherwise have been induced by a future rainy season or other event. Landslides in areas of low slope angles can result from liquefaction of subsurface sand layers during earthquakes.

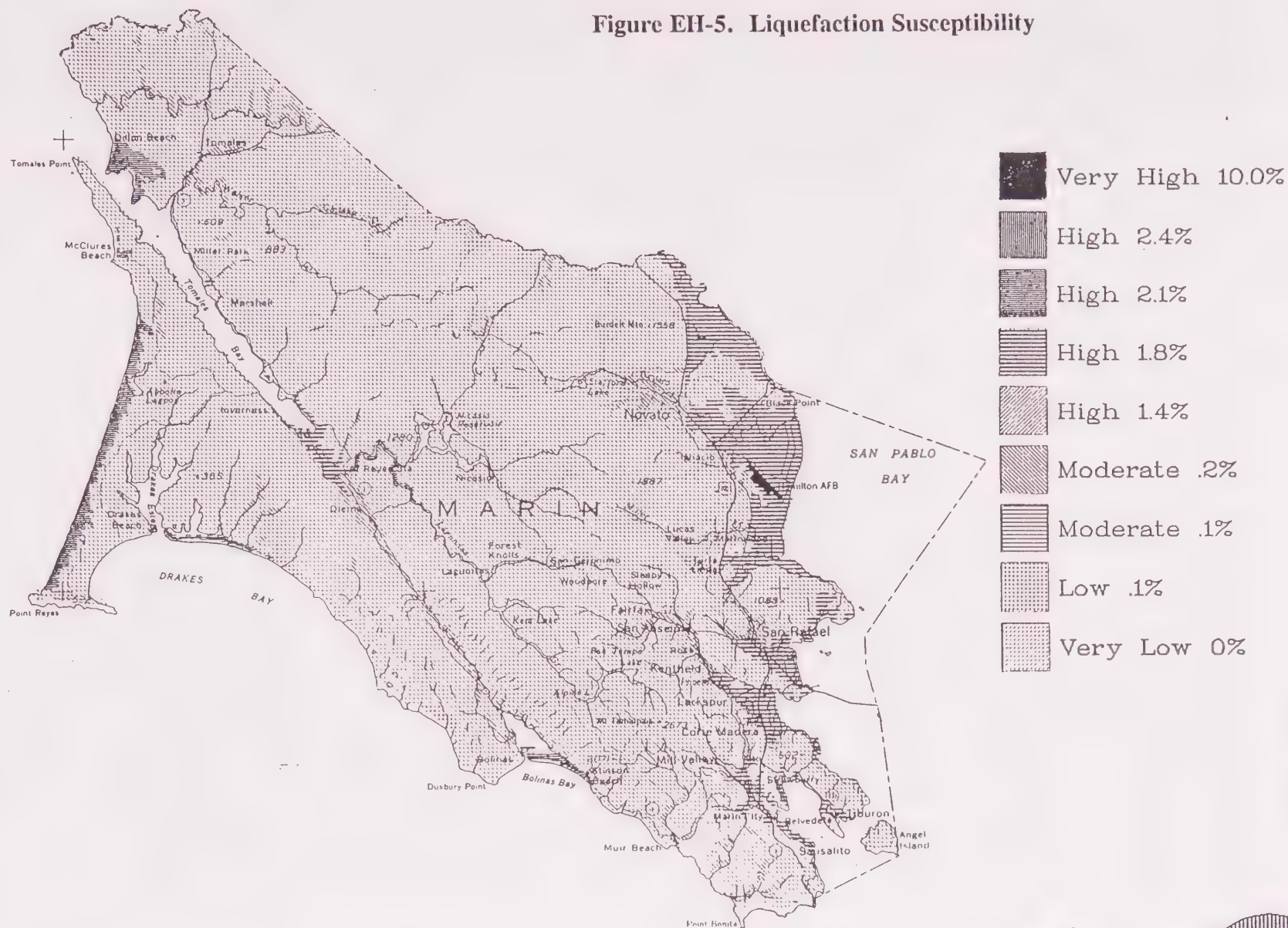
### 4. Tsunami/Seiche

A tsunami is a large ocean wave generated by a seismic event in or near the ocean. Coastal floods from tsunami rarely occur along the Pacific Coast or in the San Francisco Bay. A 1964 tsunami, generated by an earthquake in Alaska, was the most recent tsunami to cause significant damage in the County. It resulted in damage to yacht harbors in San Rafael and Sausalito estimated at \$275,000.

A seiche is an earthquake-generated wave in an enclosed body of water, such as a lake or a reservoir. Seiche waves are generally less than a foot high. However, wave run-up can be as high as 20 or 30 feet in shallow or constricted areas. These high waves have the potential to overtop dams and reservoirs and flood downstream development. See Environmental Hazards Technical Report #1, Floods: Existing Conditions and Recent Studies for a more detailed discussion of tsunamis and seiches.



Figure EH-5. Liquefaction Susceptibility



This map was developed for Countywide Plan purposes. The County of Marin is not responsible or for use of this map beyond its intended purpose.



Marin County Planning Department

## 5. Legislation and Regulations

Special consideration must be given to the location of critical facilities, those facilities which need to remain operational after an earthquake. Examples of critical facilities include hospitals, fire stations, and communication facilities. The Essential Services Buildings Seismic Safety Act of 1986 (Health and Safety Code Section 16000 et seq.) regulates the design and construction of new facilities. However, local regulations are necessary for specific locational criteria. Local regulations also govern the safety of existing critical facilities. Communities should assess the vulnerability of existing critical facilities in order to ensure that emergency operations can be carried out effectively.

The Alquist-Priolo Special Studies Zone Act addresses potential ground rupture hazards and is discussed in Section I.A.2 of this element.

SB 547 (Government Code 8876) is directed at reducing hazards in existing buildings. This legislation requires jurisdictions to prepare inventories of all unreinforced masonry buildings with corresponding mitigation measures by 1990. The unincorporated portion of Marin County only has one unreinforced masonry building, located in Point Reyes Station.

In addition to the legislation discussed above, the Uniform Building Code contains construction standards which mitigate potential structural damage from earthquakes. The Field Act contains rigorous specifications for construction of public school buildings. See Technical Report #3, Seismic and Geologic Hazards in Marin County, for detailed information on the effects of earthquakes on different types of buildings.

### B. GEOLOGIC HAZARDS

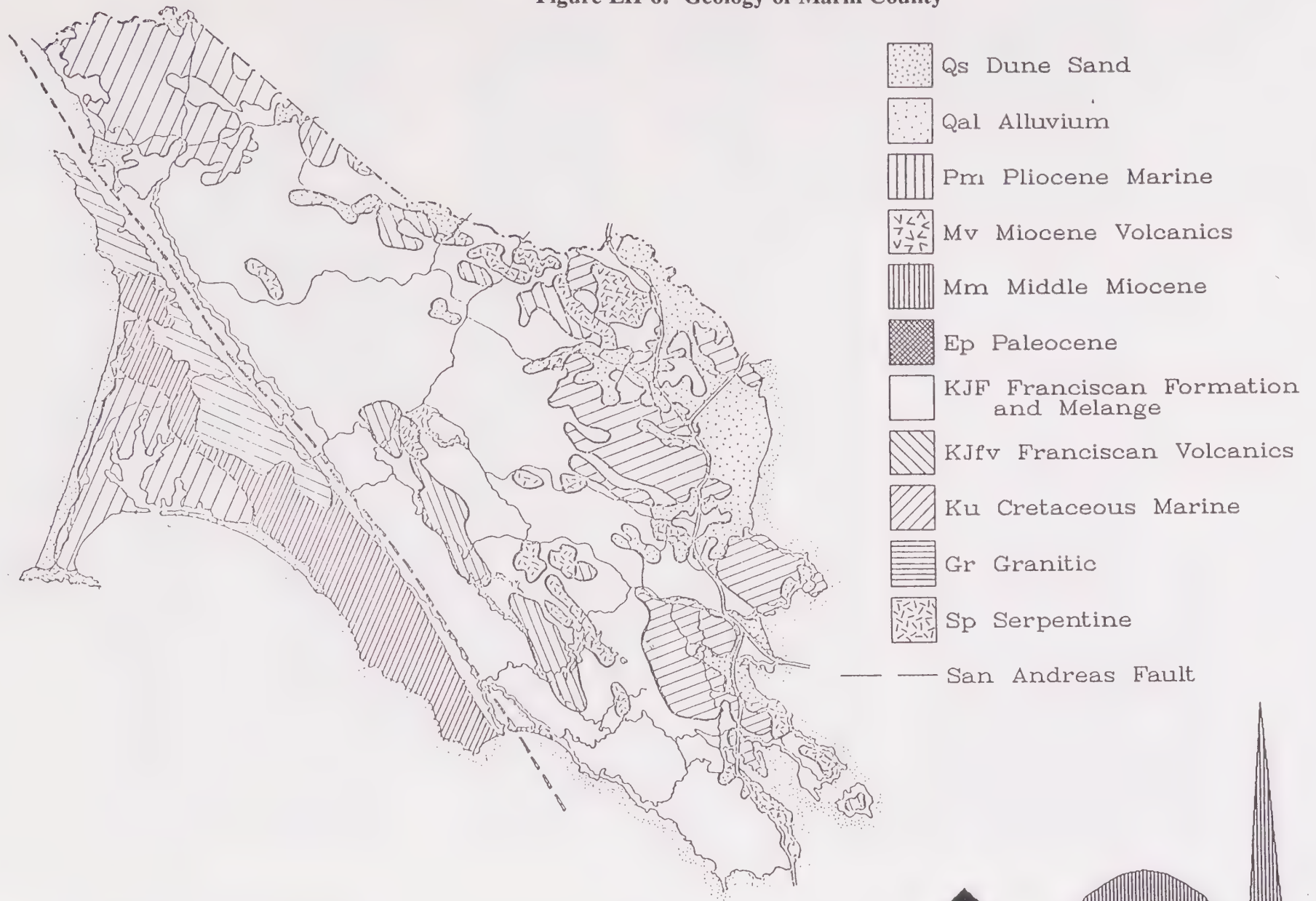
The two major types of geologic conditions in Marin County contribute to stability problems, even in the absence of a seismic event (see Figure EH-6). The county's steep hills and ridges are subject to landslides and downhill creep. The bay plains, marshlands and mud flats are subject to subsidence and differential settlement.

#### 1. Landslides

Landslides occur in certain areas for specific and relatively predictable reasons. The five primary factors determining slope stability are: 1) angle of slope; 2) soil characteristics; 3) degree of saturation; 4) human activity; and, 5) seismic activity.



Figure EH-6. Geology of Marin County



This map was developed for Countywide Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.



NORTH



Marin County Planning Department

Steep slopes are not inherently unstable. However, a steep slope which is stable may become unstable as a result of cuts made for roads, homes, or other development. Characteristics of the soil also affect slope stability. Much of Marin County is underlain by Franciscan melange, a type of soil that is highly expansive and rich in clay. Moderately steep slopes underlain by such material often exhibit evidence of slow downhill creep or debris flow. Soil saturation may occur during periods of heavy rainfall and as a result of domestic water use. Oversaturated soils tend to liquefy and flow rapidly downslope. Houses in Marin County have been damaged or destroyed when hit by fast moving flows and also when undermined by foundations embedded in liquefied soil. Human activities contributing to landslides include steep cuts in a slope, improper placement of fill on a slope, concentrated surface runoff, and irrigation practices.

All of the conditions discussed above would be exaggerated in the event of an earthquake. For this reason, it is critical that potential landslide hazards be examined by a geologist at the time of project development. Most landslide damage in Marin County has occurred within preexisting landslide deposits as a result of continuing or renewed movement. The majority of damaging landslides have occurred on slopes underlain by Franciscan melange.

In eastern Marin County, an extensive hazard and mapping project was undertaken by the California Division of Mines and Geology. These maps show land stability patterns and classify areas according to relative slope stability. The relative slope stability maps use the United States Geological Survey (U.S.G.S) maps as a base map. They are rendered at a scale of 1:12,000 or 1:24,000 and are available from the Marin County Planning Department.

The classifications of slope stability are described below:

**Zone 1**  
*Most Stable* Includes resistant rock that is exposed or is covered only by shallow colluvium or soil. Also in this zone are broad, relatively level areas along the tops of ridges or in valley bottoms. These areas may be underlain by material that is weak (such as Franciscan melange matrix and alluvium), but occupies a relatively stable position. Some landslide deposits that have moved to relatively stable positions at or beyond the base of the slopes from which they were derived are in zone 1.

**Zone 2** Narrow ridge and spur crests underlain by relatively competent bedrock, but are flanked by steep, potentially unstable slopes.

**Zone 3** Areas where the steepness of the slopes approaches the stability limits of the underlying geological materials. Some landslide deposits that appear to have relatively more stable positions than those classified within zone 4 are also shown here.

**Zone 4**  
*Least Stable* Includes most landslide deposits in upslope areas, whether presently active or not, and slopes on which there is substantial evidence of downslope creep of the surface materials. These areas should be considered naturally unstable and subject to potential failure even in the absence of human activities and influences. Banks along deeply incised streams are also included in zone 4.

The use of these slope stability maps is limited because of the large area involved and the widely varying conditions throughout the area. Despite these limitations, the maps provide an aid to land use planning and should be consulted when a proposed development is being considered.

## 2. Subsidence and Differential Settlement

Present and former marshlands and mudflats are particularly susceptible to subsidence and differential settlement. The bay mud in these areas is a soft, unconsolidated, water-saturated silty clay, containing peaty plant remains and mollusk shells. Developments built on filled bay marshlands and mud flats generally encounter stability problems. The continuing subsidence of fills results in intermittent flooding. Differential settlement damages structures, utilities, sewer lines, and roadways. These conditions create health and safety problems, as well as costly maintenance and repair problems.

In addition to the problems mentioned above, bay mud is highly compressible and subject to lateral flow when loads are placed on it. Ground shaking during an earthquake may trigger liquefaction.

Slope stability and subsidence (including liquefaction) pose a real threat to life and property in Marin County. Much of the danger associated with these geologic events can be avoided by careful evaluation of site conditions and implementation of proposed mitigation measures. In particular, critical facilities such as police and fire stations, hospitals, and communication centers must be placed outside of high risk areas.



## C. FLOOD HAZARDS

A flood in Marin County could originate from watercourses, reservoirs, bay waters, and coastal waters. Human risks from flooding occur primarily in developed portions of the floodplain, areas of land which may be inundated from storm runoff, tidal action, or high surf. Marin waterways regularly swell with storm water runoff and inundate developed areas. Portions of Mill Valley, Tiburon, San Rafael, Novato and the Ross Valley typically suffer annual flood damage. High tides combined with storm water runoff create floods in low-land bayfront and Pacific Coast communities. Flood hazards along the Marin coast may increase over time, due to the projected increase in the water level of the Pacific Ocean and San Francisco Bay. The county has eight major dams and many smaller dams. Each dam has the potential for failure and flooding of inhabited areas. Tsunamis and, to a lesser extent, seiches create flood risks.

It is important to avoid locating critical facilities in areas which may be subject to flooding, since these facilities must remain operational in an emergency situation. Location of critical facilities should be taken into consideration during project review and existing facilities should be identified and relocated whenever possible.

### 1. Watercourse Floods

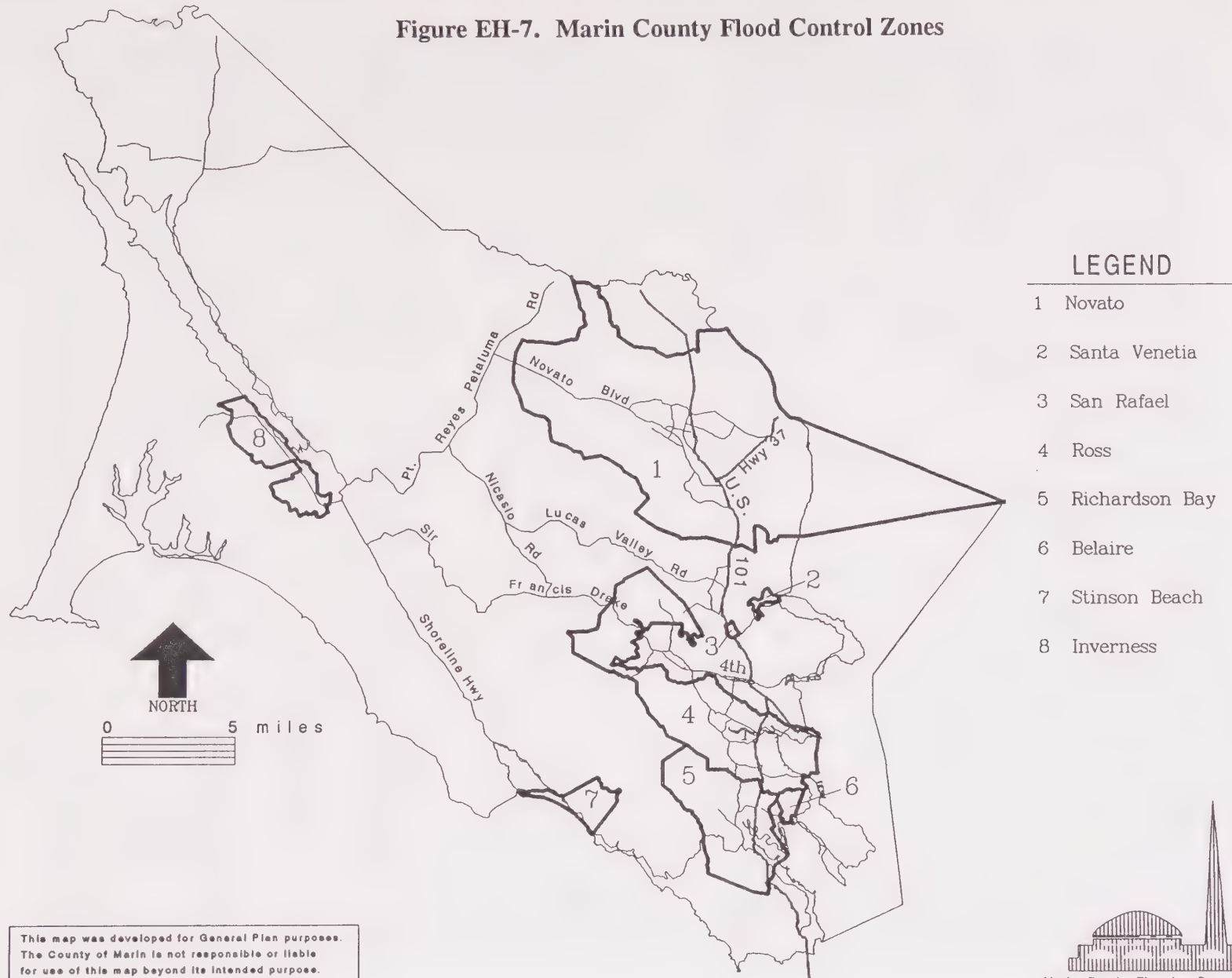
A series of storms in 1982 caused highly destructive flooding in Marin. Overflowing streams turned streets in San Rafael, San Anselmo, Fairfax, Ross, and Kentfield into raging rivers. After the 1982 floods, Marin County was declared a State and Federal disaster area. The series of storms caused an estimated \$100 million in damage.

An approach to solving flood problems should focus on regulatory methods, rather than construction-related methods. Regulatory methods such as floodplain zoning and development standards are currently being utilized in Marin County. It is possible to target areas subject to flooding for uses which can withstand periodic inundation. Construction-related methods of flood control are discouraged because they may further alter the natural waterway system.

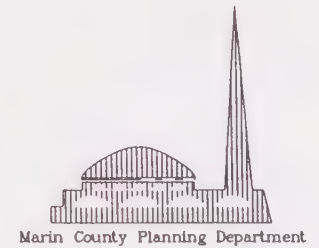
The Marin County Flood Control and Water Conservation District oversees flood control improvements and revenue collection in eight flood control zones (see Figure EH-7). The funds raised within a Flood Control Zone can be spent only within that zone as recommended by individual advisory boards which report to the Board of Supervisors. The Flood Control District has administered a number of flood protection measures including purchase of land, flood-proofing of property, construction of berms and retaining walls, floodplain zoning, and major channel improvements.



Figure EH-7. Marin County Flood Control Zones



This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.



## 2. Dam Inundation

Dams in Marin County are located near the San Andreas fault. In the event of an earthquake or after a major storm, the dams could rupture or spill water and cause flash flooding in populated areas. The severity of flooding depends on the size of the earthquake, amount of damage to dams, or the volume of water escaping from the dam.

The California Dam Safety Act of 1972 (SB 896) requires that the County plan for the sudden failure of a dam which could result in death or personal injury. The Act requires that areas of potential flooding from dam failure be identified on inundation maps. Procedures must be developed for emergency evacuation and control of populated areas within identified flood zones. Figure EH-8 shows areas subject to inundation, while more detailed maps are available through the Office of Emergency Services.

## 3. Coastal Water Floods: Ocean and Bay

The simultaneous occurrence of very high tides, large waves, storm swells, and rain could cause flooding along the Marin coast and the bay. In addition, a tsunami (discussed in EH II.A.5) could create potentially destructive water waves.

Strong southern winds accompanied by high tides and heavy surf threaten Pacific Coast and bayfront communities. Coastal communities most threatened by coastal water floods include Bolinas and Stinson Beach. In addition, areas along the San Francisco Bay near Novato Creek, the Petaluma River, Point San Quentin, San Pablo Bay, San Pedro Peninsula, and Sausalito face significant threat of flooding. The most recent storm to cause heavy damage in Marin County occurred in February 1983. A strong southern storm coupled with powerful winds and high tides flooded homes and businesses in San Rafael, Santa Venetia, and Stinson Beach. Pounding ocean waves destroyed five homes and damaged many others in the Seadrift area of Stinson Beach. High tidal waters poured over levees in San Rafael, flooding portions of East San Rafael. High tides also rushed through levees in Santa Venetia and flooded over 300 homes.



## 4. Rise in Sea Level

The projected rise in the water level of the San Francisco Bay, due to global warming, poses a flood hazard not addressed in the 1977 Environmental Hazards Element. The San Francisco Bay Conservation and Development Commission (BCDC) projects that the global climate change will raise the Earth's temperature. The higher temperature will melt ice caps and accelerate the sea level rise from the present rate of one-half foot per century to an average of four to eight feet in the next century.

Figure EH-8. Dam Failure Inundation Areas



## LEGEND

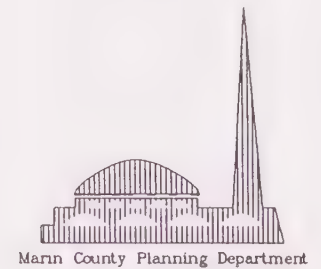
-  Dam Failure Inundation Areas
-  Lakes and Reservoirs



0 6 miles



This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.



BCDC recommends that the possible rise in sea level should be taken into consideration in land use planning efforts and that areas at risk should be identified. More information is included in a report prepared for the San Francisco Bay Conservation and Development Commission, Future Sea Level Rise: Predictions and Implications for San Francisco Bay, (October, 1988).

#### D. FIRE HAZARDS

The eastern portion of Marin County and the West Marin communities of Bolinas and Stinson Beach are served by sixteen fire protection districts (See Figure EH-9). The State of California contracts with the County to provide protection to the "State Responsibility Area." This area includes most of the inland rural and coastal portions of the county and several communities, including: Homestead Valley, Kentfield, Lucas Valley, Marin City, Marinwood, portions of Santa Venetia, and Tamalpais Valley (shown in Figure EH-10).

Fire hazards in Marin County threaten lives, property, and the natural environment. Marin forest and chaparral areas which have been prevented from burning for as long as 40 years pose a significant hazard to scenic environments and residential communities. Many Marin homes face an increased fire risk due to factors such as steep slopes, narrow streets, flammable roofing materials, proximity to old and overgrown vegetation, and distance from fire stations.

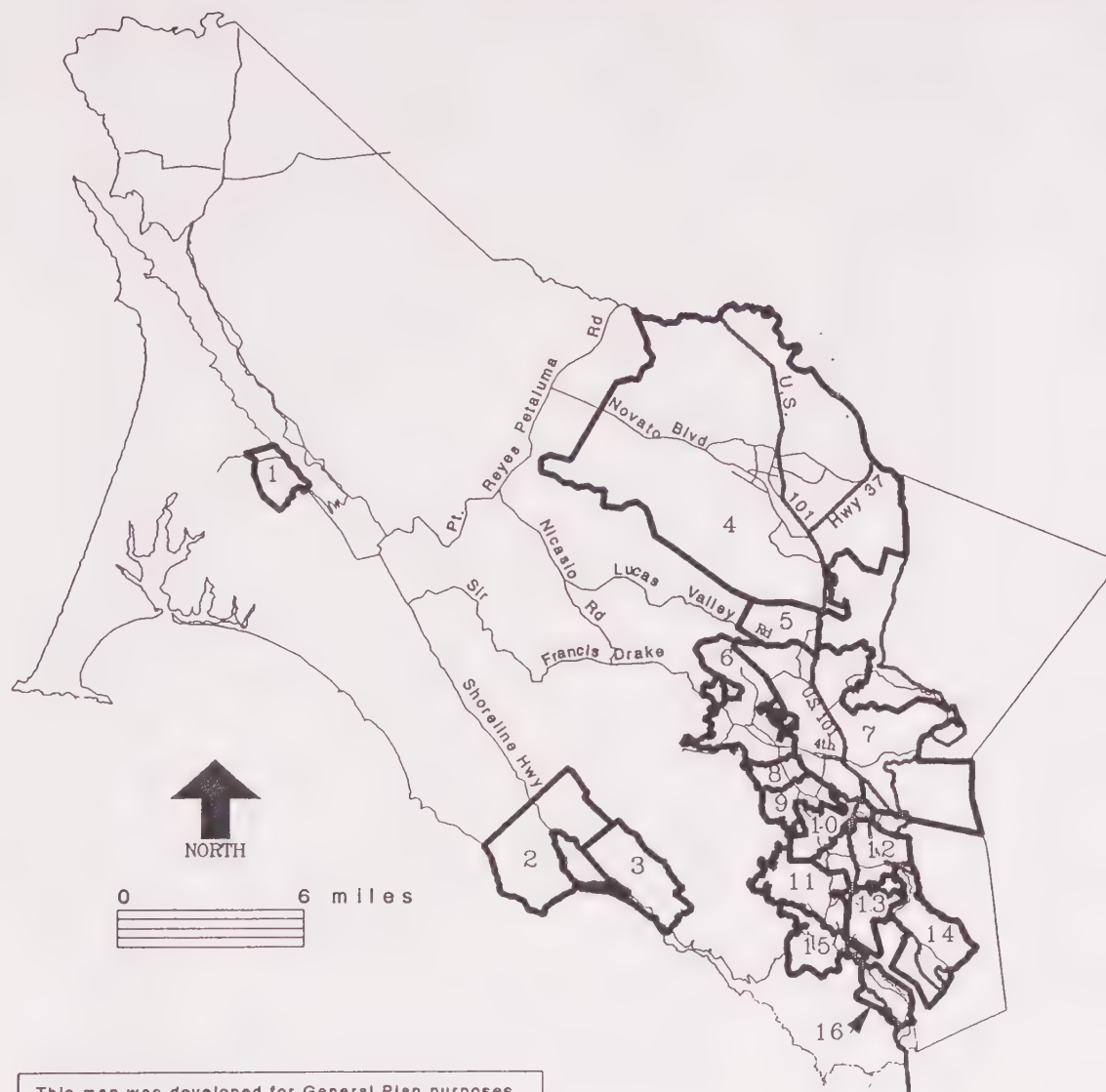
Fire hazards in the County fall into two general categories: wildland fires which emanate from open chaparral and grassland or forest areas and can threaten adjacent residential communities; and structural fires which damage the home or the workplace and may spread to other areas.

##### 1. Wildland Fires

Vegetation, weather, topography, and the location of built areas on the edge of wildlands are factors contributing to wildland fires in Marin County. Hot, dry summers reduce plant moisture and make vegetation more susceptible to burning. Winds influence fire direction and speed. Unpredictable winds near the ocean, along ridge lines, and in steep drainages cause wildland fires to spread quickly and erratically. Steep slopes allow lowland fires to preheat vegetation before climbing hillsides, which increases the rate of fire spread and impending firefighter access. Communities located in the urban fringe face risks in the event of a wildfire. These risks are increased by flammable building materials, stilt and pole construction along steep slopes, poor road access, confusing street addresses, and dense vegetation immediately surrounding homes near the wildland.



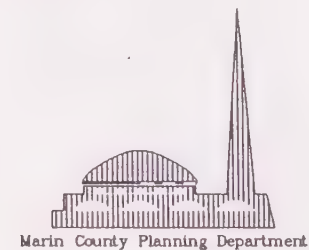
Figure EH-9. Marin County Fire Districts



This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

## LEGEND

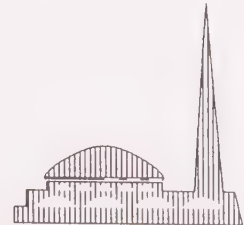
- 1 Inverness Public Utilities District
- 2 Bolinas Fire Protection District
- 3 Stinson Beach Fire Protection District
- 4 Novato Fire Protection District
- 5 Marinwood Community Services District
- 6 Ross Valley Fire Department
- 7 San Rafael Fire Department
- 8 Ross Fire Department
- 9 Kentfield Fire Protection District
- 10 Larkspur Fire Department
- 11 Mill Valley Fire Department
- 12 Corte Madera Fire Department
- 13 Alto-Richardson Bay Fire Protection District
- 14 Tiburon Fire Protection District
- 15 Tamalpais Fire Protection District
- 16 Sausalito Fire Department



[illegible]

NORTH

0 6 miles



Marin County Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

A major wildland fire in Marin could cause severe damage to open space and park lands. Land would be scarred by fire fighting techniques involving bulldozing, road cutting, and fire retardant chemicals. Rainfall following a major fire could cause severe erosion, landslides and mudslides. Landslides and mudslides might endanger roads and homes and would disrupt plant renewal by displacing topsoil. Residences located near forest, brush, or grassland areas are also threatened by wildland fires. Dry natural cover can set a home on fire during a major wildland fire and many of these homes are surrounded by trees and brush.

## 2. Structural Fires

Risk of structural fires exists for all buildings, including homes, businesses, and recreational facilities. Between 1978 and 1986, structural fires in the County caused \$23 million in structural damage and \$10 million in content damage to homes. These fires also injured 179 people and caused 16 deaths.

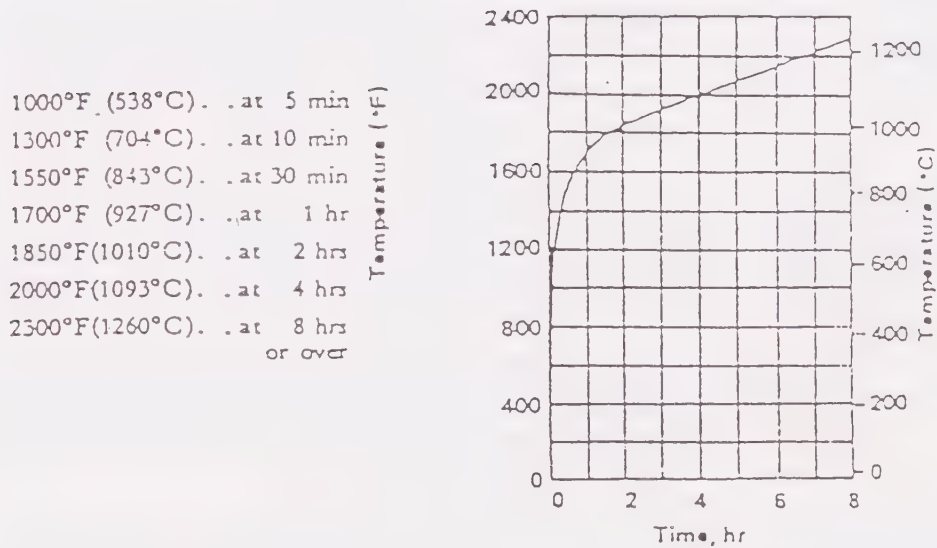
Lack of adequate water supply for fire fighting, poor access to structures, and delayed emergency response may increase fire losses. A survey of fire departments in the County, conducted between July and September of 1987, found an increased risk of loss from structural fires in Marin unincorporated areas. The existing conditions which cause this high risk of loss include: 1) long response time; 2) inadequate road access; and 3) poor water supply.

## 3. Fire Construction Standards

Fire safety construction requirements vary according to the response time of fire services, accessibility of a location, and availability of water. The critical response time for a structural fire is five minutes, since temperatures reach a level sufficient to cause significant damage within five minutes of the outbreak. Temperatures high enough to ignite most interior materials are (See Figure EH-11): wood at 508° F; cotton at 410° F; and synthetic fiber at 600° F.

In Marin County, fire construction standards vary between jurisdictions and fire protection areas (see Technical Report # 1, Community Facilities for a list of each jurisdiction's requirements). In State Responsibility Areas, the State Fire Marshall may define fire hazard zones and apply special construction standards, like fire retardant roofs. Outside of the State Responsibility Area, fire districts often recommend that fire retardant roofing be required as a condition of approval for discretionary projects.

Figure EH-11. The Time Temperature Curve



Source: National Fire Protection Agency, Building Construction Materials, 1985.

The application of fire safety requirements is not uniformly applied throughout the county because conditions and response times vary throughout the County. Upon review of individual development applications, local fire officials may find it necessary to apply additional requirements to local government codes. Discretionary applications for developments in unincorporated county areas are submitted to the appropriate fire district for review and comment. The Planning Department may need to apply conditions of approval based on the District's recommendations, in order to protect the safety and welfare of the community.

For a non-discretionary permits, such as a permit for a single-family home on an existing lot, the Uniform Building Code and Uniform Fire Code determine the regulations for fire safety. These regulations are generally less strict than requirements recommended by the various fire districts in the County.



### III. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

**Objective EH-1. Public Awareness.** To stimulate public awareness of environmental hazards.

**Policy EH-1.1** **Support for public awareness.** The County should advise citizens on the availability of countywide and local area environmental hazards studies, sources of hazard information, and public services.

**Program EH-1.1a** Public information. The County should prepare a handout informing prospective property owners about safety hazards that may exist on properties within Marin County.

**Program EH-1.1b** Maps available. Maps depicting the areas covered by the Alquist-Priolo Special Studies Zone Act should be made publicly available at County offices and the County Planning Department.

**Program EH-1.1c** Improve soils information. The County should develop a systematic and accessible compilation of existing drilling log data in filled and bay mud areas.

**Policy EH-1.2** **Support scientific geologic investigations.** The County should continue to support scientific geologic investigations which refine, enlarge and improve the body of knowledge on active fault zones, unstable areas, severe ground shaking, and similar hazardous conditions in Marin County.

**Objective EH-2. Location and Rehabilitation of Public Structures.** To protect public health and safety through safe location and rehabilitation of public structures.

**Policy EH-2.1** **Location of public structures.** Structures necessary for the protection of public safety and/or the provision of emergency services should not be located in areas subject to inundation, subsidence, slope failure, or ground failure in a seismic event. An exception to this policy may be granted if the only alternative location would be so distant as to jeopardize the safety of the community, given that adequate precautions are taken to protect the facility.

- Program EH-2.1a      Project review procedures.      The County Planning Department shall facilitate project review by providing reference maps on seismic study areas. Public structures shall be located outside such study areas.
- Policy EH-2.2      **Emergency building design.**      Emergency buildings and vital utilities, communication systems, streets and other public facilities should be designed in a manner which allows them to remain operational during and after an earthquake, or any other disaster.
- Policy EH-2.3      **Critical facilities.**      Within designated fault zones, the following critical public uses should be prohibited: schools, hospitals, utility and public safety facilities, high density housing and reservoirs.
- Objective EH-3.      Minimize Construction Hazards.      To minimize hazards to the public from private construction located in hazardous areas.
- Policy EH-3.1      **Location of future development.**      New development shall be sited in a manner which avoids or minimizes the potential of hazards from earthquake, erosion, landslides, floods and fire. Development should not be endangered by nor contribute to hazardous conditions on the site or on adjoining properties.
- Program EH-3.1a      Project review.      The Planning Department shall continue to review the impact of a project on the site and surrounding properties potentially affected by the development.
- Policy EH-3.2      **New development approval.**      New development will be approved in identified geologic hazard areas only if the hazards can be reduced to acceptable levels through mitigation measures, design and aesthetic considerations appropriate to the site, and improvements consistent with other policies in the Countywide Plan.
- Program EH-3.2a      Mitigation.      The County Planning Department should continue to require mitigation measures for projects proposed in areas with identified geologic hazards.

**Policy EH-3.3**

**Disaster protection measures.** At places of employment, residence, and public gatherings, safety measures shall be taken to protect the public health and safety during and following a disaster. These measures shall include provisions for the health and safety of people with disabilities.

**Program EH-3.3a**

Project Review. Criteria for project review should provide for the health and safety of members of the public.

**Objective EH-4. Protection from Ground Rupture Hazards.** To protect public health and safety from ground rupture hazards.

**Policy EH-4.1**

**Alquist-Priolo special study zones.** The Alquist-Priolo Special Studies Zone Act shall continue to be implemented by the County and efforts should be made to inform applicants early in the development process of the existence of known fault traces which might affect their property, site development, and design.

**Policy EH-4.2**

**Location of structures.** No public or private structure built for human occupancy, or with the potential to imperil structures for human occupancy, shall be permitted to be placed across the trace of a confirmed active fault. This policy shall not be interpreted as being more restrictive of single-family residential construction than the Alquist-Priolo Act. It is assumed that the area within fifty (50) feet of an active fault is underlain by active branches of that fault unless and until proven otherwise by an appropriate geologic investigation.

**Program EH-4.2a**

Project review procedures. The Department of Public Works should continue to determine the applicability of the Alquist-Priolo Act, and if necessary, require a site investigation report by a registered geologist.

**Policy EH-4.3**

**Public financing support.** Public financing or support should be withheld from buildings located in an Alquist-Priolo Special Studies Zone with a confirmed fault trace, unless there is no possibility of surface fault displacement or ground rupture which would injure the public investment.



**Policy EH-4.4**

**Geologic investigation requirement.** No new building sites should be created within the Alquist-Priolo Special Studies Zone, unless an appropriate geologic investigation establishes sufficient and suitable land area for development according to existing zoning and other applicable County ordinances.

**Program EH-4.4a**

Applications for development. Applicants proposing to develop land or divide land into two or more parcels located within the Alquist-Priolo Special Studies Zone must submit a geologic report to the County. The report shall be prepared by an engineering geologist and directed to the problem of potential surface fault displacement through the project site unless a waiver has been approved by the State Geologist.

**Objective EH-5. Protection from Ground Shaking Hazards.** To protect public health and safety from seismic ground shaking hazards.

**Policy EH-5.1**

**Mitigation of risk.** Construction of all new habitable structures, including those for residential, commercial, and industrial use, shall employ engineering measures which mitigate against life safety risks from ground shaking. At minimum, new structures shall meet standards specified in Title 19, Marin County Code.

**Policy EH-5.2**

**Geotechnical investigation requirements.** Applications for proposed developments sited on landslide deposits, non-engineered fill, or bay mud shall be accompanied by a geotechnical engineering investigation which focuses on the problem of ground shaking and ground failure.

**Program EH-5.2a**

Requirements for soils and geologic reports. The Planning Department shall require that soils and geologic reports be submitted with master plan applications, and that soils and/or geologic reports accompany subdivision applications.

**Policy EH-5.3**

**Potential earthquake hazard in existing buildings.** The County should minimize potential earthquake damage from existing publicly owned buildings through strengthening building structure, eliminating hazardous features, or relocating buildings.



- Program EH-5.3a**      Structural improvements. The Department of Public Works should identify structural improvements needed for safety in public buildings and develop measures to institute the necessary improvements.
- Program EH-5.3b**      Compliance with SB 547. In compliance with SB 547, the Department of Public Works should identify unreinforced masonry buildings in unincorporated county areas and require strengthening of structurally unsound buildings.
- Policy EH-5.4**      Location and design of high-occupancy structures. The design and siting of structures occupied by a large number of people, such as restaurants and hotels, shall consider site constraints. Site constraints and appropriate safety measures for design and siting shall be determined by the engineering geologist and civil engineer conducting the site investigation.
- Program EH-5.4a**      High density structures. The Department of Public Works should determine that structures which are to be occupied by a large number of people (as described in Policy EH-5.4) are designed to be as safe as similar structures in locations not subject to excessive ground shaking or other geologic hazard.
- Objective EH-6.    Protection from Slope Stability and Landslide Hazards.    To protect public health and safety from slope instability and landslide hazards.**
- Policy EH-6.1**      Evaluate projects in stability zones 3 or 4. Prior to consideration of site design or use, the Department of Public Works shall evaluate projects proposed in zones 3 or 4 (see EH II.B.1) in stability and landslide potential according to the California Division of Mines and Geology Classification 9. Project proposals shall be accompanied by a report prepared by a civil engineer with soils engineering expertise or a soils certified engineering geologist. The soils evaluation should address the structural foundation engineering of the actual site, the impact of the project on adjacent lands, and impacts of off-site conditions on the site.

**Policy EH-6.2**

**Construction observation and certification.** For work undertaken to correct slope instability, the County should require that the work is supervised and certified by a geotechnical engineer and, when necessary, an engineering geologist.

**Policy EH-6.3**

**Projects on known landslides and landslide-prone deposits.** New development should not occur on known landslides and landslide-prone deposits on steep slopes, except where an engineering geologic site investigation indicates that such sites are stable, or can be made stable through appropriate mitigation measures. In such cases, it must be shown that the risk to persons, property, or public liability can be minimized to a degree acceptable to the County.

**Program EH-6.3a**

**Project review.** The County should continue project review procedures which may require soils and/or geologic reports to be reviewed by the Department of Public Works.

**Objective EH-7. Protection from Subsidence and Differential Settlement Hazards.** To protect public health and safety from subsidence and differential settlement hazards.

**Policy EH-7.1**

**Filled land underlain by compressible materials.** Soils investigations for projects on filled land underlain by compressible materials (bay mud, marsh, slough) should delineate those areas where settlement will be greatest and subsidence may occur. Soils investigations should include: recommended site preparation techniques employed to preclude hazard; borings; identification of former sloughs; and a list of other factors which would accentuate differential settlement.

**Policy EH-7.2**

**Minimize differential settlement.** In the areas with great potential for differential settlement, uses should be planned which would not be damaged by settlement and which would provide minimum inducement to settlement that is detrimental to persons, property and public investment.

- Program EH-7.2a      Soils report requirement. The County shall continue to address differential settlement and subsidence in required geologic reports.
- Program EH-7.2b      Findings requirement. The Public Works staff must make a finding that the proposed fill, excavation, or grading will not unduly or unnecessarily create a safety hazard in areas susceptible to differential settlement. The staff finding may be appealed to the Planning Commission.
- Program EH-7.2c      Site preparation requirements. When recommended by the consulting geotechnical engineer, site preparation shall include settlement monitoring for a period of time sufficient for evaluating the particular site characteristics as needed for detailed foundation engineering and site planning.
- Policy EH-7.3      **Structural design of foundations and utilities.** The structural design of foundations and utilities shall recognize the potential for differential settlement and subsidence.
- Program EH-7.3a      Enforce development standards. The Department of Public Works should continue to enforce development standards with regard to minimum elevations and ultimate settlement. The Building Inspection Department should continue to enforce building code requirements for structural design of foundations and utilities.
- Program EH 7.3b      Augmented expertise. The Department of Public Works should continue to hire consultants in soils engineering as necessary for evaluating specific developments proposed on bay mud and fill.
- Policy EH-7.4      **Identify inadequately engineered fills.** The Department of Public Works should continue to determine the adequacy of engineered fills prior to the construction of structures.
- Objective EH-8. Safety from Inundation. To assure public safety in areas subject to inundation.
- Policy EH-8.1      **Location of critical facilities.** Public safety structures should not be located within the range of a tsunami.



- Program EH-8.1a      Review procedures. The County should utilize the California Environmental Quality Act environmental review procedure to review and direct the siting of critical facilities structures in tsunami hazard areas.
- Policy EH-8.2      **Construction.** Improvements should be designed to withstand impact from a tsunami and the debris it will carry. Structural features which could become dislodged or detached (docks, decking, floats, vessels) should be situated where they do not have the potential of becoming potential implements of destruction.
- Program EH-8.2a      Implementing regulations. The County shall continue to implement the regulations of Marin County Code Title 23.09 (Floodplain Management), which establishes Coastal High Hazard Zones with special locational and construction standards for all land uses subject to tsunamic inundation.
- Policy EH-8.3      **Multiple use.** The County should continue to promote the multiple use of areas set aside for flood retention ponding purposes (i.e. agriculture, open space, education, ecology), provided these uses can tolerate occasional flooding.
- Program EH-8.3a      Application review. The County should encourage the multiple use of ponding and encroachment areas designated under Title 23 (Floodplain Management). Through the application review process, the County should also encourage the use of lands reserved for floodplains under the Floodway Zoning provisions of Title 22 (Zoning).
- Policy EH-8.4      **Regulatory methods of flood control.** The County should encourage regulatory methods of flood control, rather than construction-related methods of flood control. Regulatory methods reduce the need for flood control projects, minimize losses in areas where flooding is inevitable, and ensure that those who occupy flood hazard areas are aware of the risks and assume responsibility for their actions.



- Program EH-8.4a      Flood hazard zone policies and County code provisions. The County shall continue to support and enforce policies in the Marin County Code pertaining to special flood hazard zones, including the Coastal High Hazard Zone (Title 23, Floodplain Management), the Bayfront, Floodplain, Tidelands, and Coastal Zones, Title 11 (Watercourse Obstruction), Title 22 (Floodplain Districts), and the provisions of Title 20 (Subdivisions).
- Program EH-8.4b      Clarify zoning ordinance. The County Planning Department should strengthen and clarify references to flood hazard areas occurring along the San Francisco Bay, Tomales Bay, and the Pacific Ocean in the zoning ordinance sections pertaining to the Bayfront Conservation Zone, the Coastal Zone, the Planned District Zones, and the Tidelands Zone.
- Program EH-8.4c      Refer applications. The County Planning Department shall continue to refer all permit applications for proposed construction, substantial improvements and other development to the Department of Public Works to determine whether development is proposed within flood prone areas and therefore subject to the provisions of Title 23.09 (Floodplain Management).
- Program EH-8.4d      Restrict dangerous uses. The County shall enforce the special locational, storage, water supply and sewer, subdivision, and mobile home standards for flood hazard areas identified in Title 23 (Floodplain Management). Title 23 restricts uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in increases in erosion or in flood heights or velocities.
- Program EH-8.4e      Apply construction standards. The County Planning Department shall require that uses vulnerable to floods, including facilities which serve these uses, are protected against flood damage at the time of construction. The construction standards of the Marin County Code, including Title 23 (Floodplain Management) shall be applied to protect these uses from flood damage.

- Program EH-8.4f      Restrictions in floodways. The County should support special restrictions in floodways and watercourses. Developments in floodways risk damage from erosion, high velocity flood waters, and potential projectiles from debris carried in the flood waters. Restrictions should prohibit encroachments in watercourses, prohibiting structures within a primary floodway, and restricting development in a secondary floodway or flood fringe which would increase risks to public health and safety in the event of a flood.
- Policy EH-8.5      **Zoning overlays.** To minimize flooding hazards, the County should expand the use of floodplain zoning overlays in flood areas.
- Policy EH-8.6      **Flood runoff.** The County should ensure that capacity is sufficient for anticipated flood runoff in stream channels. The preferred measures for ensuring adequate capacity are: regulating development; and whenever feasible, storing, ponding, or maintenance dredging instead of major structural improvements. The County should control filling, grading, dredging, and other development which may increase flood damage by increasing sedimentation in streams and watercourses and increasing the amount of impervious surface in an area.
- Program EH-8.6a      Enforcing County codes. The County shall continue to enforce the provisions of Titles 11, 19, 20, 22 and 23, regarding grading, excavation, filling, and dredging.
- Program EH-8.6b      Hydrologic and geologic studies. The County should require detailed hydrologic and geologic studies in development projects which have the potential for increasing sedimentation of watercourses, increasing impervious surface, or altering natural drainage patterns in order to insure adequate capacity for the safe handling of flood runoff.
- Program EH-8.6c      Reevaluate flood prone areas. The County should reevaluate flood prone areas, periodically regarding changes to elevations as a result of off-site development or natural forces.

**Policy EH-8.7**                      **Flood barriers.**    The County should prevent the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

**Objective EH-9.   Protection from Dam Failure or Seiche.**   To protect the public from the consequences of a dam failure, or inundation from a seiche in the event of an earthquake.

**Policy EH-9.1**                      **Dam and levee design.**   The design and location of dams and levees should be safe from all maximum potential seismic and hydrologic events.

Program EH-9.1a                      Enforce County code.   The County shall continue to enforce the provisions of Title 11.04 (Dams) and Title 23.08 (Excavation) which allow the County to review applications for dam permits when the dam size is smaller than the minimum size requiring a permit from the State of California.

Program EH-9.1b                      Inspect levees.    The County should continue to inspect existing levees and review new levees for seismic and hydrologic safety.

**Policy EH-9.2**                      **Notify property owners.**   Property owners who are located in areas of possible inundation from failure at one eight major dams should be notified regarding susceptibility to flood hazard.

Program EH-9.2a                      Public information regarding dam inundation areas.   Information on the location of dam inundation areas, for the eight major dams, should be made publicly available in the County Planning Department.

**Objective EH-10.   Minimize Hazards from Sea Level Rise.**   To minimize the effects of potential flooding due to the projected rise in sea level.

**Policy EH-10.1**                      **Rise in ocean level.**   The County should evaluate the potential for a rise in the level of the ocean and bay. The County should develop a program for integrating information about such a rise into the ongoing flood control planning efforts.



Program EH-10.1a. Modify construction standards. The County Planning Department should work with the County Flood Control and Water Conservation District and Department of PublicWorks to prepare a plan for responding to a potential rise in the sea level. The County should consider developing flood control projects and modifying the Marin County Code Chapters 11, 22, and 23 to include construction standards for areas subject to increased flooding from a rise in the sea level.

Program EH-10.1b Monitoring stations. In conjunction with the United States Geological Survey, the San Francisco Bay Conservation and Development Commission, and other interested agencies, the County should establish monitoring stations to track the rise in Bay and ocean water levels.

**Objective EH 11. Minimize Risk of Wildland and Structural Fires. To minimize the risk of wildland and structural fires, and ensure adequate fire protection.**

**Policy EH-11.1** **Fire hazards.** The County should have information available on extreme fire hazard areas.

Program EH-11.1a Maps for public review. The County Planning Department should coordinate with the County Fire Marshall in mapping fire hazard areas subject to wildland fire risk. These maps should be available to planners and the public for use in reviewing projects and applying building standards which reduce the risk of fire.

Program EH-11.1b Five minute response time. The County Planning and Building Departments, in consultation with the County Fire Marshall and Fire District Officials serving the unincorporated county, should identify and map areas beyond a five minute response time. Areas beyond the five minute response time shall be classified as extreme fire hazard areas subject to automatic sprinkler requirements.

**Policy EH-11.2** **Permit referral.** Land development and residential building permit applications should be referred to the County Fire Department or pertinent local fire district for review and recommendation.



- Program EH-11.2a      Building standards.    The County Planning Department should collaborate with the Department of Public Works and Fire Districts serving the unincorporated County to develop building standards for fire safety, in lieu of a discretionary application system.
- Program EH-11.2b      Conditions of approval.    Recommendations made by fire authorities should be included as conditions of approval for discretionary planning permits when the Planning Department staff determines that these recommendations are necessary for safety reasons.
- Program EH-11.2c      County Code.    Requirements for referrals of discretionary planning permits to County fire officials should be specified in the County Code.
- Policy EH-11.3**      **Mitigate risk in new land divisions.**    New subdivisions and land divisions in areas identified as having extreme fire hazard should only be allowed where adequate water for fire suppression is or can be made available. If feasible, access for residential subdivisions should be provided by more than one source. Fire trails and fuel breaks should be required when necessary. If development is to occur in extreme fire hazard areas, fire-resistant materials, clearances from structures, and landscaping with fire-resistant plants should be required.
- Program EH-11.3a      Adequacy of standards.    The Planning Department and fire officials should work together to evaluate the adequacy of standards for water supply and road access to subdivisions in the Marin County Code Title 20 (County Building, Subdivisions) and Title 22 ( Zoning Codes).
- Program EH-11.3b      Fire retardant roofing.    The Planning Department should amend the Marin County Code to incorporate a requirement for Class C fire-retardant roofing in all county unincorporated areas. This requirement will bring all portions of the county into conformance with fire-retardant roofing standards presently in place for State Responsibility Areas in Marin.

- Program EH-11.3c      Brush clearance. The Planning Department should amend the Marin County Code to establish uniform standards for clearance from structures, landscaping, and fire-resistant building materials (particularly pole construction), for all new construction in fire hazard areas.
- Policy EH-11.4      **Fuel breaks and access routes.** The Marin County Fire Department or other local fire protection agencies should work in concert with the Marin County Open Space District, the State Division of Forestry and the National Park Service to encourage and promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression.
- Policy EH-11.5      **Uniform fire code.** The Board of Supervisors and the appropriate County agencies and all other agencies having fire protection responsibilities should continue to implement the latest Uniform Fire Code.
- Program EH-11.5a      Review County code. The Marin County Code should be periodically reviewed by the Planning Department, Department of Public Works, and fire officials, to insure conformance with the latest Uniform Codes.
- Policy EH-11.6      **Hazardous vegetation.** The County should plan for the systematic and environmentally sound reduction of hazardous vegetation, in order to reduce the buildup of old and hazardous vegetation created by effective fire suppression activities over the last 40 years.
- Policy EH-11.7      **Fire safety standards.** The County should implement State of California fire safety standards for the State Responsibility Areas in a uniform manner, to insure comparable safety standards for all new construction in the county and to simplify the development review process.
- Program EH-11.7a      Conformance with fire safety standards. The Planning Department should work with fire officials to bring the Marin County Code into conformance with State Responsibility Area construction and fire safety standards.



# **AGRICULTURE ELEMENT**





## AGRICULTURE ELEMENT

### TABLE OF CONTENTS

|                                                                |    |
|----------------------------------------------------------------|----|
| I. INTRODUCTION                                                | 1  |
| A. LEGAL AUTHORITY                                             | 1  |
| B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS                 | 1  |
| C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS                | 1  |
| D. ORGANIZATION OF THE ELEMENT                                 | 2  |
| II. BACKGROUND                                                 | 2  |
| III. CHARACTERISTICS OF AGRICULTURE IN MARIN                   | 4  |
| A. NATURAL RESOURCES                                           | 4  |
| 1. Climate                                                     | 4  |
| 2. Soils                                                       | 5  |
| B. TYPES OF AGRICULTURE                                        | 5  |
| 1. Number and Size of Farms                                    | 10 |
| 2. Ownership Patterns                                          | 10 |
| C. MARIN/SONOMA RELATIONSHIPS                                  | 10 |
| D. FEDERAL PROGRAMS, MILK PRICE SUPPORTS, AND DAIRYHERD BUYOUT | 12 |
| E. GENERAL MANAGEMENT PLANS FOR POINT REYES AND GGNRA          | 12 |
| F. AGRICULTURAL PRODUCTION TRENDS IN MARIN                     | 14 |
| III. EXISTING AGRICULTURAL POLICY IN MARIN COUNTY              | 15 |
| A. ENVIRONMENTAL CORRIDORS                                     | 15 |
| B. AGRICULTURAL DISTRICTS                                      | 17 |
| 1. Agricultural Zoning Districts                               | 17 |
| 2. Right-to-Farm                                               | 21 |
| C. LOCAL COASTAL PROGRAM                                       | 22 |
| D. BAYFRONT CONSERVATION ZONE                                  | 23 |
| E. LAFCo POLICIES                                              | 24 |
| F. WILLIAMSON ACT                                              | 25 |
| G. MARIN AGRICULTURAL LAND TRUST (MALT)                        | 27 |
| H. TRANSFER OF DEVELOPMENT RIGHTS                              | 29 |
| I. PARKLANDS, WATERSHED AND OPEN SPACE ACQUISITIONS            | 30 |

|                                                        |    |
|--------------------------------------------------------|----|
| IV. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS  | 32 |
| A. PRESERVATION OF AGRICULTURAL AREAS                  | 32 |
| B. AGRICULTURAL EASEMENTS                              | 33 |
| C. AGRICULTURAL LANDS IN THE CITY-CENTERED<br>CORRIDOR | 34 |
| D. AGRICULTURE ON FEDERAL PARK LANDS                   | 35 |
| E. NON-AGRICULTURAL LAND USES IN RURAL AREAS           | 35 |

## LIST OF TABLES

|                                                                    |    |
|--------------------------------------------------------------------|----|
| A-1. Relationship of Farmland to Other Uses                        | 6  |
| A-2. Status of Lands in Agricultural Use                           | 7  |
| A-3. Trends in Selected Agricultural Characteristics (1959-1982)   | 11 |
| A-4. Animal Unit Equivalents                                       | 14 |
| A-5. Value of Marin County Agricultural Commodities, 1990          | 16 |
| A-6. Public Use Lands In Marin County                              | 30 |
| A-7. Land Use Effect of Public Lands And Contract Restricted Lands | 31 |

## LIST OF FIGURES

|                                                    |    |
|----------------------------------------------------|----|
| A-1. Rainfall and Plant Climates                   | 8  |
| A-2. Important Farmlands                           | 9  |
| A-3. Marin Countywide Plan Environmental Corridors | 18 |
| A-4. A-60 Zoning in Marin County                   | 19 |
| A-5. Agricultural Preserve Zone                    | 28 |





## I. INTRODUCTION

Agricultural operations are an important part of Marin's historic past and remain an important part of Marin's economy. As a land use, agriculture provides open space and helps maintain a rural atmosphere in the county.

### A. LEGAL AUTHORITY

The Agriculture Element is optional under California general plan law. However, California planning law states that "the general plan may include any elements or address...subjects which...relate to the physical development of the county or city" (Government Code Section 65303).

The County originally addressed agricultural land use issues in the Environmental Quality Element. Those issues and policies as well as additional policies now included in the Agriculture Element, help to emphasize the County's commitment to preservation of agriculture and supporting land uses.

### B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Agriculture Element is related to other elements in the following manner:

*Community Development Element:* Designates land uses in a manner which preserve important aspects of the county economy.

*Environmental Quality:* Includes policies which help preserve agricultural lands, thereby maintaining a rural atmosphere in the Inland Rural and Coastal Recreation Corridors.

### C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

The Agricultural Element is related to Local Coastal Plans I and II and West Marin community plans in the following manner:

*Local Coastal Plans I and II:* Maintains the rural quality of the coastal environment as required by the California Coastal Zone Act. The Act requires the County to: "protect maintain, and, where feasible, enhance and restore the overall quality of the coastal environment and its natural and artificial resources."

*Community Plans:* Supports continuance of agricultural land uses and operations in West Marin communities, including the communities of: Nicasio, San Geronimo, East Shore, Dillon Beach, Point Reyes Station, Tomales, and Stinson Beach.

#### **D. ORGANIZATION OF THE ELEMENT**

The element offers background information on agriculture in Marin, including: data on the number and type of farms and amount of agricultural production; the history of agriculture in Marin and its relationship to agriculture in Sonoma County; and, factors that contribute to agricultural production such as soils and climate and supporting land uses.

The existing agricultural policy in Marin section discusses County policies which help to preserve agricultural practices and private measures in support of agriculture, such as the Marin Agricultural Land Trust.

The County's agricultural policies and implementation programs recognize the value of continued agriculture for producing food and fiber for the region and as an important component of the county's diversified economy. The policies and programs in this element protect and preserve agricultural lands through making use of: 1) extremely low density zoning in the Inland Rural and Coastal Corridors; 2) transferred development rights from agricultural areas to areas more suitable for development; 3) agricultural easements which preserve land for continued agricultural uses; 4) cluster development and master plan development standards; and 5) the Williamson Act.

## **II. BACKGROUND**

Approximately 167,590 county acres are in agricultural use totalling 41.5% of the county land area. The 1987 U. S. Census of Agriculture recorded 285 agricultural operations in Marin County, at an average size of 588 acres. One-third of all farms are 50 acres or less in size and 60% are under 500 acres. Most farms are run by families or a partnership of family members. Approximately three-quarters of the operators are full- or part-owners.

Historically, the dairy industry has been the major agricultural activity in the county. Most ranches belong to third and fourth generation ranch families. In 1987 Marin dairies supplied about a quarter of the region's milk supply, totalling \$27.1 million in sales. Dairy sales in 1987 accounted for 70% of the \$39.1 million total county agricultural sales. The State Department of Conservation rated 73,149 county acres as "important farmlands" (see Table A-1) and 94,018 acres as suitable for grazing. County rainfall is not sufficient or reliable enough for row crops. Non-irrigated rangeland, particularly in coastal areas, can support a relatively high ratio of animals per acre.

Livestock production is the second largest agricultural industry in the county, with 111 beef cattle, cow/calf, and sheep grazing operations producing livestock, replacement heifers for dairies, and breeding stock. All livestock operations are heavily dependent upon imported feed. The price of feed fluctuates based on the quantity and quality of harvest, time of year, demand, and transportation costs. A close relationship exists between the Sonoma County and Marin County agriculture industries, especially in terms of local importation of feed and support for the California Cooperative Creamery in Petaluma, the major point of delivery for local milk. Many Marin ranchers travel to southern Sonoma County for supplies, entertainment, and other amenities.

The viability of agriculture in Marin relies upon the continuation of the very low density agricultural zoning implemented in the Inland Rural and Coastal Recreation Corridors in the early 1970s. The Countywide Plan established that urban and suburban development should occur primarily in the City-Centered Corridor, while agriculture and open space uses should occur primarily in the Inland Rural and Coastal Recreation Corridors. Over the years, the viability of agriculture in West Marin has been supported by such government programs as the Federal milk price support program, Federal parklands purchases with continued agricultural leasing, and watershed and Open Space District acquisition programs. The Williamson Act, passed in 1965 and amended in 1970, allows for reduced property taxation for agricultural lands which fall within the established "agricultural preserve zone" and qualify under assessor-defined criteria. Figure A-5 shows where preserve contracts on 95,176 acres are currently in effect. This program has been a major factor in keeping agricultural lands in production throughout the State.

Private measures to preserve agriculture include the purchase of transferred development rights (TDRs) and agricultural easements, such as those programs sponsored by the Marin Agricultural Land Trust (MALT), a private non-profit organization. MALT's primary tool is agricultural easements, in which the landowner places permanent restrictions on future uses of his property in order to protect its agricultural character and productivity.



A Transfer of Development Rights (TDR) is a local planning and zoning device provided for in the Marin County Zoning Code (Title 22.47.106) to protect agricultural uses from displacement by development. TDRs work in the following manner. Land zoned for agricultural use also has development rights for other use, such as residential development. However, the exercise of these development rights often adversely affects and disrupts agricultural operations. A TDR allows the development rights on one property (the donor property) to be acknowledged and determined, and provides the means by which those development rights can be transferred to another (receiver) property through the master plan approval process. The purpose of such a transfer is to relocate potential development away from areas where environmental or land use impacts could be severe to areas where those impacts can be minimized.

The Countywide Plan also allows for other compatible uses such as guest ranches, campgrounds, and hostels to be permitted in agricultural areas to allow for a reasonable use of private lands, and for a transfer of residential development rights to more compatible sites.

### **III. CHARACTERISTICS OF AGRICULTURE IN MARIN**

#### **A NATURAL RESOURCES**

##### **1. Climate**

Climate is a major influence in the agricultural use of land in the county. The hilly topography, non-prime soils, and the lack of a reliable year-round water supply combine create a terrain inappropriate for row crops. However, the coastal lands have a high level of moisture resulting from fog and are among the best lands in the state for grazing livestock.

Much of Marin's agricultural land, especially in the coastal area, is subject to a cool and moist climate. Coastal rainfall produces better rangeland than in the Inland Corridor. For example, the carrying capacity of Marin's non-irrigated rangeland often approaches one cow/calf per four acres. In the Central Valley of California, by contrast, the carrying capacity is generally one cow/calf per fifteen acres. With the high cost of feed and transportation, this productive, non-irrigated rangeland provides Marin dairies and ranches with a major asset in their competition with other California operations.

## 2. Soils

The Soil Conservation Service uses a land capability classification system developed by the U.S. Department of Agriculture to place soil areas into groups with similar management options or problems. Soils are designated by roman numerals I through VIII depending on their limitations and suitability for most common crops. The numerals indicate progressively greater limitations and narrower choices for practical use. For example, Class I soils have few limitations while Class VIII soils have severe limitations. The majority of agricultural soils in Marin fall into soils Classes II through VII.

The soils have been ranked by importance to agriculture in the state. In cooperation with the local Resource Conservation District and the Soil Conservation Service, a local citizens advisory committee helped to identify farmlands of local importance. (see Table A-1.) These lands included "all non-irrigated tillable and potentially tillable lands including Classes II through IV." These soils are most often found on level or gently sloping terrain such as the bayside lands east of Highway 101, the eastern shore of Tomales Bay and the northwestern corner of the County. Along the San Francisco Bay in Novato and San Rafael areas, reclaimed waste water is used to irrigate locally important grazing and crop lands.

Most of the remainder of Marin County is defined by the State Department of Conservation as grazing land. Grazing lands are those lands in soil classes V through VII, defined as "land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock." About 98% of Marin's agricultural lands fall into the two categories of local farmland and grazing land (see Table A-1 and Figure A-2). The relationship between important farmlands, grazing lands, and other county land uses is shown in Table A-1.

### B. TYPES OF AGRICULTURE

In the 1950's, dairy products comprised over 80% of the total income from county agriculture operations (Marin County Annual Crop and Livestock Reports). This figure had dropped to 59% in 1979 but rebounded to 69.5% of the total income in 1987. By 1987, beef operations have declined to 5.7% of the County's sales, while pasture and cut plants have shown a marginal increase. After dairy and beef operations, poultry, and eggs are the most valuable products. The County also produces lambs, wool, hay, silage, nursery crops, fruits, nuts, and vegetables.

Table A-1. Relationship of Farmland to Other Uses

| Total in Land Use Categories                                 | Acres as of<br>July 1988 | Percent of<br>County Area <sup>1</sup> |
|--------------------------------------------------------------|--------------------------|----------------------------------------|
| Prime Farmland <sup>2</sup>                                  | 168                      | 0.0                                    |
| Statewide Farmland <sup>3</sup>                              | 318                      | 0.1                                    |
| Unique Farmland <sup>4</sup>                                 | 110                      | 0.0                                    |
| Local Farmland <sup>5</sup>                                  | 72,553                   | 19.1                                   |
| <i>Subtotal Important Farmlands</i>                          | <i>73,149</i>            | <i>19.3%</i>                           |
| Grazing Land <sup>6</sup>                                    | 94,018                   | 24.8                                   |
| <i>Subtotal Agricultural (Farm &amp; Agricultural Lands)</i> | <i>167,167</i>           | <i>44.0</i>                            |
| Urban <sup>7</sup>                                           | 38,707                   | 10.2                                   |
| Other Lands                                                  | 128,715                  | 34.0                                   |
| Water                                                        | 44,354                   | 11.7                                   |
| Total County Area in Inventory                               | 378,943 <sup>8</sup>     | 100%                                   |

Source: Department of Conservation, Farmland Mapping and Monitoring Program, Farmland Conversion Report 1986-1988.

- <sup>1</sup> Percentages may not total properly due to rounding.
- <sup>2</sup> Lands with the best combination of physical and chemical features for the production of agricultural crops.
- <sup>3</sup> Lands with a good combination of physical and chemical features for the production of agricultural crops.
- <sup>4</sup> Lands of lesser quality soils used for the production of the state's leading cash crops.
- <sup>5</sup> Lands of importance to the local agricultural economy.
- <sup>6</sup> Lands on which the existing vegetation is suited to the grazing of livestock.
- <sup>7</sup> Lands occupied by structures with a building density of at least one unit to one half acre, approximately six structures on a ten acre parcel.
- <sup>8</sup> Area inventoried represents the extent of Important Farmland Mapping, derived, in part from USDA Soil Conservation Service County soil surveys. USDA Soil Conservation Service Soil Survey for this County does not include 11,924 acres of water area as counted by County Assessor; see Table A-7.

Table A-2. Status of Lands in Agricultural Use in Marin County

| Category | Description                                                       | Acres               | Percent |
|----------|-------------------------------------------------------------------|---------------------|---------|
| 1        | Contract Restricted - Agricultural Preserve or Open Space         | 93,579 <sup>1</sup> | 55.6    |
| 2        | Agricultural Lands in:                                            |                     |         |
|          | Golden Gate National Recreation Area                              | 10,557 <sup>2</sup> | 6.3     |
|          | Point Reyes National Seashore                                     | 20,659              | 12.3    |
| 3        | Vacant Lands with Agricultural Zoning (not contract restricted)   | 15,584 <sup>3</sup> | 9.3     |
| 4        | Improved Lands with Agricultural Zoning (not contract restricted) | 12,537 <sup>3</sup> | 7.5     |
| 5        | Vacant Lands with Other Zoning, but in Agricultural Use           | 15,330 <sup>3</sup> | 9.1     |
| Total    |                                                                   | 168,246             | 100.0%  |

Source:

<sup>1</sup> Marin County Assessor

<sup>2</sup> National Park Service

<sup>3</sup> Marin County Planning Parcel Database Estimate, March 1988



Figure A-1. Rainfall and Plant Climates in Marin County

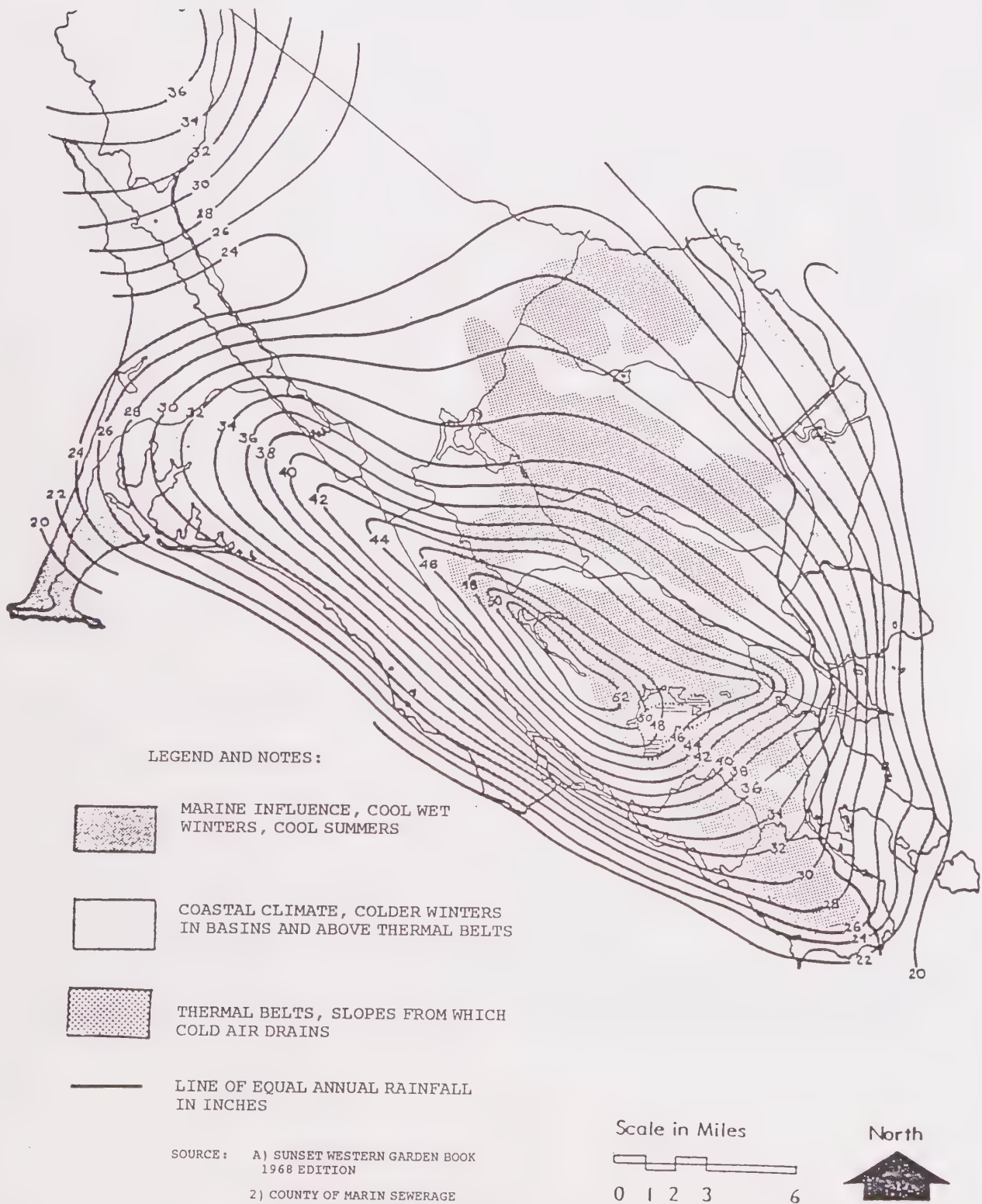
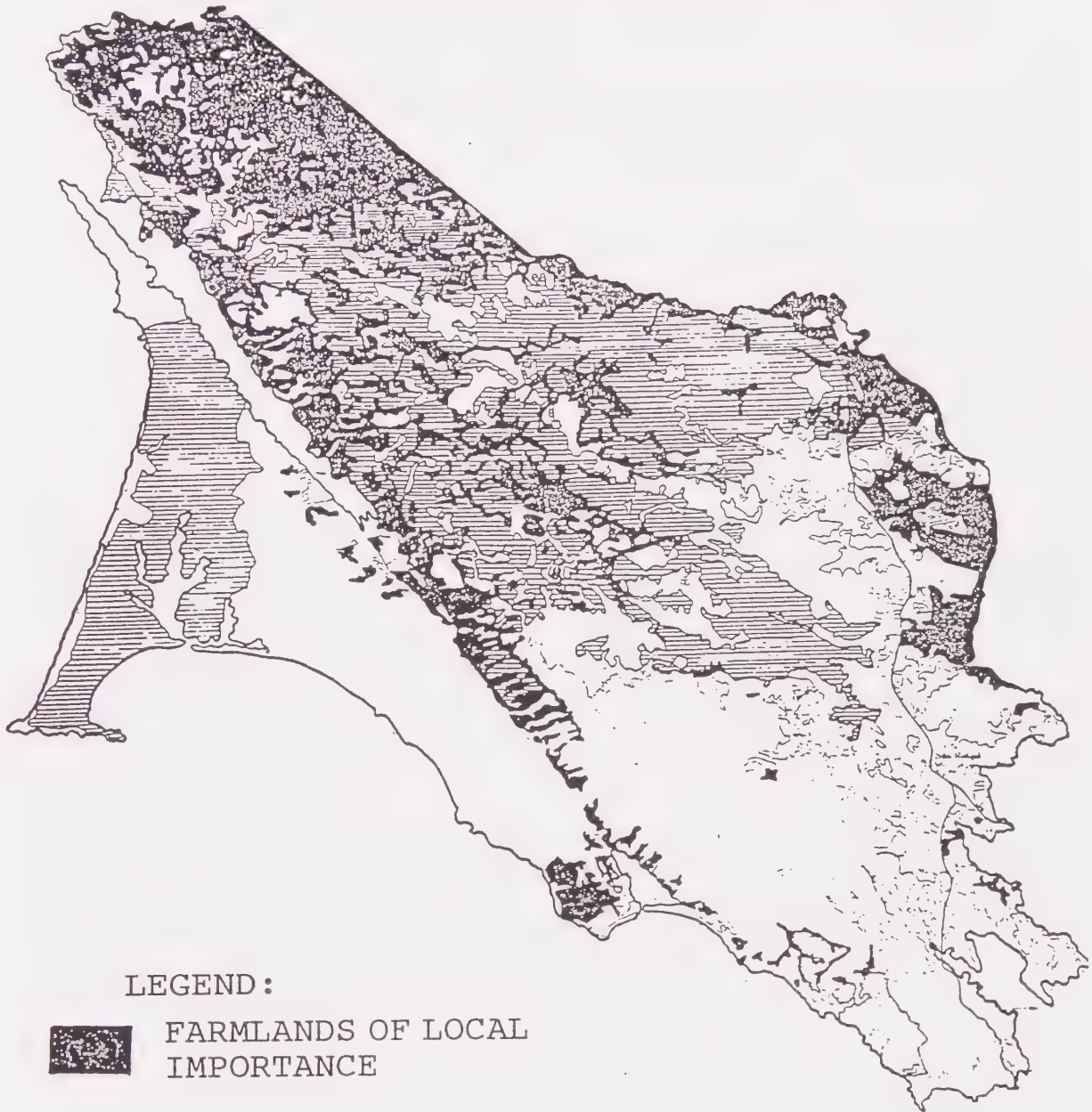


Figure A-2. Important Farmlands of Marin County



LEGEND:



FARMLANDS OF LOCAL  
IMPORTANCE



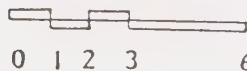
GRAZING LANDS



URBAN AND OTHER  
LAND USES

SOURCE: A) U.S. SOIL CONSERVATION  
SERVICE GENERAL SOILS MAP  
2) DEPARTMENT OF CONSERVATION DRAFT  
IMPORTANT FARMLANDS MAP

Scale in Miles



North



## 1. Number and Size of Farms

The 1987 U.S. Census of Agriculture lists 285 farms in Marin County on 167,590 acres of land in agricultural use. The Census Bureau defines a farm as any agricultural operation with annual sales over \$250. Farms defined as such represent nearly half (49.6%) of the county's land base.

The average county farm size has remained relatively stable over the past 20 years. In 1987, the average farm was 588 acres. However, one third of all farms are fifty acres or less in size with 60% under 500 acres. The number of farms in large parcels over 1,000 acres in size has remained stable. Table A-3 shows the distribution of farms by size in Marin County.

## 2. Ownership Patterns

Agriculture in Marin County is a family business. Most ranches are owned and operated by families or a partnership of family members. Statistics from the 1987 Census of Agriculture reflect the high percentage of ranch owner/operators in Marin County: 207 out of a total of 285 farms in the County (73%) were operated by a full- or part-owner in 1987. The percentage of owner/operators has remained relatively constant from 1962 to 1982 (U.S. Census of Agriculture). During this period, approximately three quarters of all farm operators were at a least partial owner of the operation.

Farm size has also remained stable. In 1959, the average farm size was 603 acres as compared to 588 acres in 1987. Table A-3 provides a summary of these trends.

## C. MARIN/SONOMA RELATIONSHIPS

Any discussion of agriculture in Marin County is incomplete without a recognition of its relationship to agriculture in Sonoma County. The 1987 Census of Agriculture shows Sonoma County with 3,039 farms - more than ten times that of Marin County. Agricultural output in Sonoma County has climbed steadily from a forty-year low in 1977, due to the drought, to a forty-five year high in 1987 of \$209 million.

In 1987, the average farm size in Sonoma was 181 acres, approximately one-third of the Marin County average. The difference in size may be attributed to Sonoma County's greater diversity of soils, crops, and climatic conditions.

**Table A-3. Trends in Selected Agricultural Characteristics  
for Marin County (1959-1982)**

| Trends                    | 1959    | 1964    | 1969    | 1974    | 1982    | 1987    |
|---------------------------|---------|---------|---------|---------|---------|---------|
| Number of Farms           | 377     | 289     | 263     | 250     | 274     | 285     |
| Land in Farms (acres)     | 227,450 | 172,885 | 175,038 | 148,893 | 165,935 | 167,590 |
| % of County in Farms      | 68      | 52      | 53      | 45      | 49.6    | 50      |
| Average Farm Size (acres) | 603     | 598     | 666     | 596     | 606     | 588     |
| Farm Size :               |         |         |         |         |         |         |
| 0 - 499 acres             | 231     | 173     | 161     | 150     | 164     | 178     |
| 500 - 599 acres           | 64      | 55      | 35      | 40      | 46      | 41      |
| 1,000 acres or more       | 82      | 61      | 67      | 60      | 64      | 66      |

Source: U. S. Department of Commerce, Census of Agriculture, 1987.



Many Marin County dairies import hay and grain from Sonoma. The Marin and Sonoma dairies depend on one another to support the dairy cooperatives necessary for marketing their product. The California Cooperative Creamery in Petaluma began in 1913 with 33 dairies from the Petaluma area. Marin County dairy farmers first joined in the early 1950s. Today, 53 of the 65 dairies in Marin are members and they contribute 40% of the milk. Many Marin ranchers travel to southern Sonoma County for supplies, entertainment, and other amenities. For cattle and sheep operations, the relationship is less strong, but still significant.

#### D. FEDERAL PROGRAMS, MILK PRICE SUPPORTS, AND DAIRYHERD BUYOUT

The Federal Milk Price Support Program was designed to stabilize the market for milk products. This program guarantees a base price to creameries for milk, butter, cheese, and dry milk that meet certain quality standards and cannot be sold in the marketplace. However, due to national agricultural policy, a series of changes in the formula to establish the milk price support has contributed to uncertainty among the dairying community. From 1978 to 1981, the price subsidy rose from \$9.43 per 100 weight to \$13.10 per 100 weight. As of August 1988, however, the price has been cut to \$11.35 per 100 weight.

The 1987 Dairyherd Buyout Program was a one-time Federal effort to reduce the numbers of producing milk cows in the nation. It created a market to "buy out" whole herds of dairy cattle by selling them to the government for slaughter or export. Numerous offers of herd to the Buyout Program were made by dairying operations in Marin, but only three were bid low enough to meet Federal guidelines. As a result, 1,093 head were slaughtered and 340 head were exported to Mexico. The three operations were also required to stay closed to the dairy business for five years, but remained in agricultural use as ranching operations.

#### E. GENERAL MANAGEMENT PLANS FOR POINT REYES NATIONAL SEASHORE AND GOLDEN GATE NATIONAL RECREATION AREA

The Point Reyes National Seashore and the Golden Gate National Recreation Area were established by Congress in 1962 and 1972, respectively, to preserve the undeveloped shoreline and recreational open space for public benefit and enjoyment. In both cases, a "pastoral zone" has been established where dairy and beef cattle are allowed to graze, and in some cases, where crops are grown.

The enabling legislation for the Point Reyes National Seashore and Golden Gate National Recreation Area supports continuance of the current agricultural uses within the park boundaries. Public Law 95-625 (enacted in 1978) strengthened the legislative provision for continued agricultural use. This provision was in response to local concerns that park acquisitions would negatively impact Marin's agricultural economy. To allow the traditional agricultural activities to continue, the National Park Service and ranchers enter into leases, special use permits, or reservations of use.

Ranching and dairying operations exist on approximately one-third (20,650 acres) of the Point Reyes National Seashore. These operations carry 3,400 dairy cattle, 1,700 beef cattle and cultivate about 1,500 acres for hay and silage. They involve 15 resident ranch headquarters and 18 ranchers. The Northern District (pastoral zone) of the Golden Gate National Recreation Area has 10,557 acres in ranching involving 10 resident ranchers and 4 non-resident ranchers who raise approximately 920 beef cows.

The National Park Service (NPS) has established resource management policies to maintain and perpetuate the integrity of the park system. These policies were given specific expression in the Range Management Guidelines (April 1988). The guidelines help the NPS administer the grazed rangelands in a manner that will protect the environment by: preserving archeological sites; protecting streams, stream banks, and wetlands from contamination and sediments; minimizing soil erosion; minimizing spread of noxious non-native plant species; providing for the recovery of rangelands in deteriorated condition; and governing pesticide use.

The guidelines provide a methodology for measuring and improving the park's rangelands through the permit process. More specific ranch unit plans will be developed by NPS over time, in order to maximize resource protection while considering ranch operations and economic viability. The NPS will calculate the relative grazing impact of different kinds and classes of domestic livestock in the parks in terms of "animal unit equivalents." One animal unit is equal to one mature (1,000 pound) cow or the equivalent based upon average daily forage consumption of 26 pounds of dry matter per day. Consumption is measured in "animal unit months" (AUM's) meaning the amount one animal unit consumes in one month. The NPS uses the following animal unit equivalents to calculate stocking levels and establish permit fees.

**Table A-4. Animal Unit Equivalents Established for Point Reyes National Seashore and Golden Gate National Recreation Area**

| Type of Livestock                                                        | Animal Units |
|--------------------------------------------------------------------------|--------------|
| Cattle                                                                   |              |
| Cow with or without unweaned calf at side or heifer 2 years old or older | 1.0          |
| Bull, 2 years old or older                                               | 1.3          |
| Young cattle, 1 to 2 years old                                           | 0.8          |
| Weaned calves to yearlings                                               | 0.6          |
| Horses                                                                   |              |
| Horse, mature                                                            | 1.3          |
| Horse, yearling                                                          | 1.0          |

Source: Range Management Guidelines, Point Reyes National Seashore, April 1988, Appendix C. pg. 43.

#### F. AGRICULTURAL PRODUCTION TRENDS IN MARIN

Agriculture is the leading industry in California, generating \$12.5 billion dollars in annual sales, and providing a quarter of the nation's food and 40% of its fresh fruits and vegetables. The State's two leading industries, dairy products and cattle, are also the leading agricultural commodities in Marin County. In 1990, Marin's gross agricultural income totalled \$45.7 million dollars; with \$29.6 million from dairy operations.

Historically, the dairy industry has been the major agricultural activity in the County with most ranches belonging to third- and fourth- generation ranch families. The dairies are generally located in the northeast section of the Inland Rural Corridor. Dairies in Marin provide approximately a quarter of the Bay Area milk supply. In 1991, these dairies generated over \$29.6 million dollars; about 65% of total County agricultural sales.



Livestock production is the second largest agricultural industry in the County. Beef cattle, cow/calf, and sheep grazing operations are common, in addition to raising replacement heifers for dairies and breeding stock. The various types of livestock operations are often combined on one ranch. Countywide, a total of 67 ranches are involved in beef cattle operations, predominantly in the central part of the Inland Rural Corridor, while 34 ranches graze sheep in northwest Marin. Livestock operations in Marin County are heavily dependent upon imported feed as well as local grazing lands. The cost per ton for both hay and grains tripled in the ten year period between 1974 and 1984, rising from an average of \$45 per ton to \$130. The cost of one ton of hay in July 1991 was approximately \$115. The price of feed fluctuates according to the quantity and quality of harvest, time of year, demand, and transportation costs.

In 1983, Marin County ranchers imported approximately 48,750 tons of grain and 92,081 tons of hay, valued at \$16 million. This amounted to roughly 1/3 of the total dollars produced by the agricultural community that year. Local hay production in 1983 was only 5,419 tons. Silage planting has increased in recent years to offset importation costs, and is now up to 31,784 tons produced in 1990. In overall production trends, the County's product value has continued to grow to a high of \$45,509,228 in 1981 with recent years showing a plateau or slight decline in dollar value production to \$39,005,328 in 1987. However, in 1990, agricultural production rose to \$45,793,222. Table A-5 shows the value of agricultural commodities produced in Marin in 1990.

The data for Table A-5 was collected by the Agricultural Commissioner. Since many of the questionnaires sent to agricultural producers were not returned to the Commissioner, the value of agricultural production is assumed to be substantially underreported.

Several smaller farm operations producing fruit, nut, vegetable, and plant products sold locally indicate new viability in areas where soils can support this production. The market for these products has been stimulated by the highly favorable public response to farmers' markets, open air markets held year-round on the Civic Center grounds and seasonally in downtown San Rafael and Novato.

### III. EXISTING AGRICULTURAL POLICY IN MARIN COUNTY

#### A. ENVIRONMENTAL CORRIDORS

The Marin Countywide Plan divides the county into three corridors according to distinct environmental characteristics and County land use policies (see the Environmental Quality Element). Most of Marin's agricultural land is located in the Inland Rural Corridor (see Figure A-3).



**Table A-5. Value of Marin County Agricultural Commodities, 1990**

| Commodity                               | Dollar Value | Percent  |
|-----------------------------------------|--------------|----------|
| Milk (market)                           | \$29,649,915 | 64.75 %  |
| Milk (manufacture)                      | 12,775       | 0.03     |
| Cattle                                  | 2,776,680    | 6.06     |
| Poultry and eggs: hatching & production | 5,428,812    | 11.86    |
| Pasture, non-irrigated                  | 2,310,000    | 5.04     |
| Hay and silage                          | 919,092      | 2.01     |
| Lambs                                   | 477,120      | 1.04     |
| Nursery crops                           | 1,306,519    | 2.85     |
| Wool                                    | 29,221       | 0.06     |
| Fruit, nuts and vegetables              | 984,702      | 2.15     |
| Pasture, irrigated                      | 90,200       | 0.20     |
| Aquaculture                             | 1,808,186    | 3.95     |
| Total                                   | \$45,793,222 | 100.00 % |

| Commodities Summary     | Dollar Value | Percent  |
|-------------------------|--------------|----------|
| Field and Orchard Crops | \$4,303,994  | 9.40     |
| Nursery Crops           | 1,306,519    | 2.85     |
| Livestock Products      | 29,691,911   | 64.84    |
| Livestock and Poultry   | 8,682,612    | 18.96    |
| Aquaculture             | 1,808,186    | 3.95     |
| Total                   | \$45,793,222 | 100.00 % |

Source: County of Marin, Annual Livestock and Agricultural Crop Report, 1990. Note: These figures are known to be far below actual production since most of the questionnaires sent out were not returned to the Commissioner.

The City-Centered Corridor, the eastern portion of the county adjacent to Highway 101, is the most densely populated corridor. The Coastal Recreation Corridor is dominated by Federal and State parklands.

## B. AGRICULTURAL DISTRICTS

### 1. Agricultural Zoning Districts

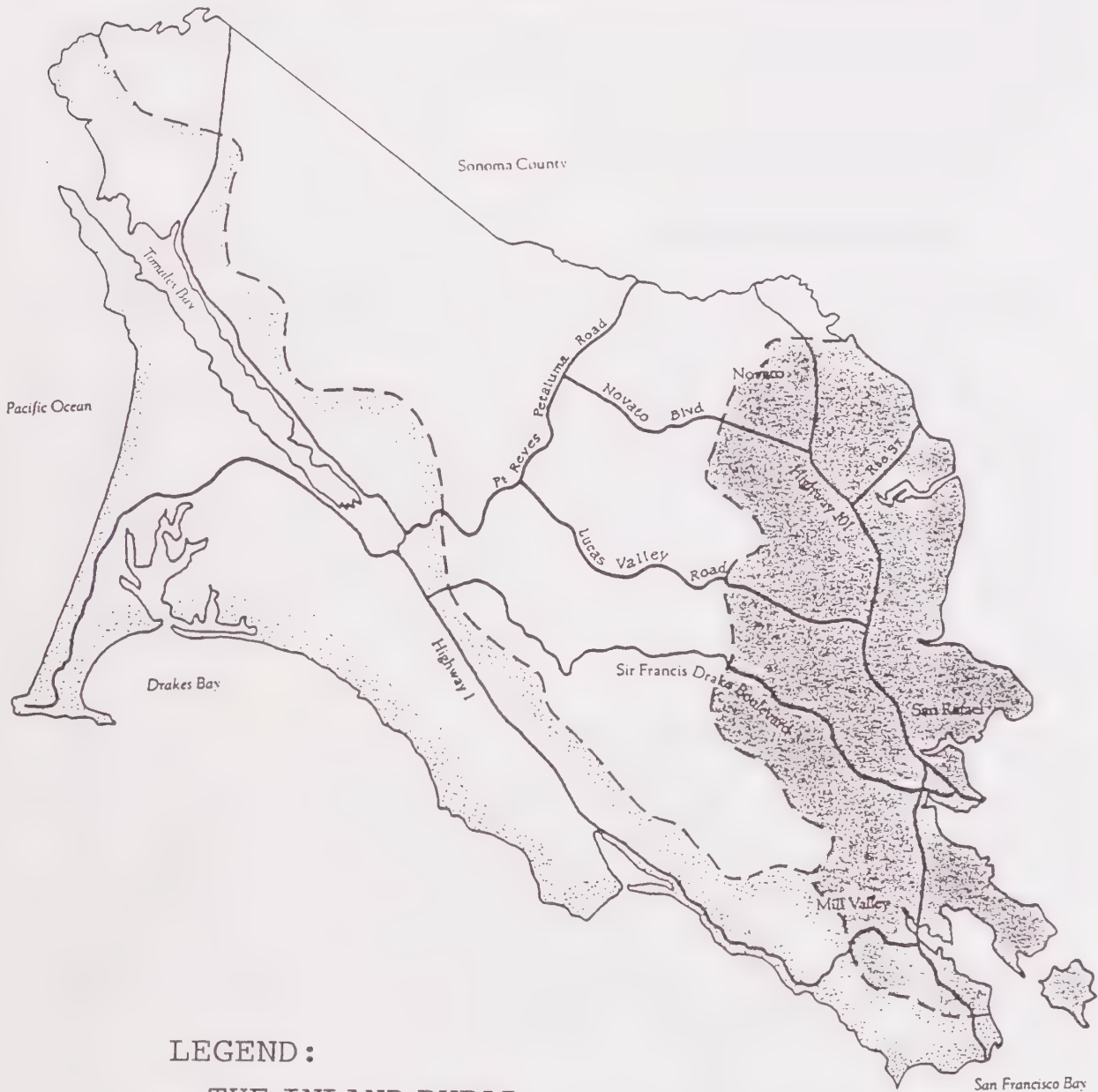
Agricultural zoning districts provide the most effective implementation method for encouraging and preserving agriculture.

Marin has three agricultural zoning districts: the A (Agriculture) district; the ARP (Agricultural Residential Planned) district; and, the APZ (Agricultural Production Zone) district. Most of the land within these three zoning districts has a 60-acre minimum lot size requirement, although the A and ARP districts include areas with minimum lot size as small as two acres. The portion of Marin County which is zoned A-60 is illustrated in Figure A-4. The A district predominates in the Inland Rural Corridor, in areas such as Hicks Valley and Chileno Valley. The ARP district has been applied primarily to the Nicasio and San Geronimo Valley areas. The APZ district exists in the coastal agricultural areas.

Agricultural zoning districts protect agricultural uses by requiring very low density zoning (60 acres per dwelling unit in most areas) and restricting the land to agricultural and other compatible uses. About 90% of the agricultural land in Marin is zoned A-60, A-RP-60, or C-APZ-60, which allows one housing unit for every 60 acres. The A zoning district, the least restrictive of the three, covers a majority of agricultural land in the County. Several non-agricultural uses (those uses which do not involve the raising or production of food or fiber) are allowed in the A district subject to a use permit. These uses include: horse breeding, boarding and riding facilities, aircraft landing strips, oil and gas production operations, mining, rifle range, golf courses, institutional uses, and junkyards.

Clustering of development is an optional standard which may be required for development within this zone. The major purposes of clustering are to maintain farm units of a minimum viable size and to segregate agricultural uses from non-agricultural uses. Many of the individual parcels of land in A districts are comprised of hundreds of acres of land. These large agricultural holdings can be currently subdivided to the minimum lot size specified in the zoning district, even if such a subdivision would limit the economic viability of agriculture.

Figure A-3. Marin Countywide Plan Environmental Corridors



LEGEND:



THE INLAND RURAL  
CORRIDOR



THE COASTAL RECREATION  
CORRIDOR



THE CITY CENTERED  
CORRIDOR

Scale in Miles

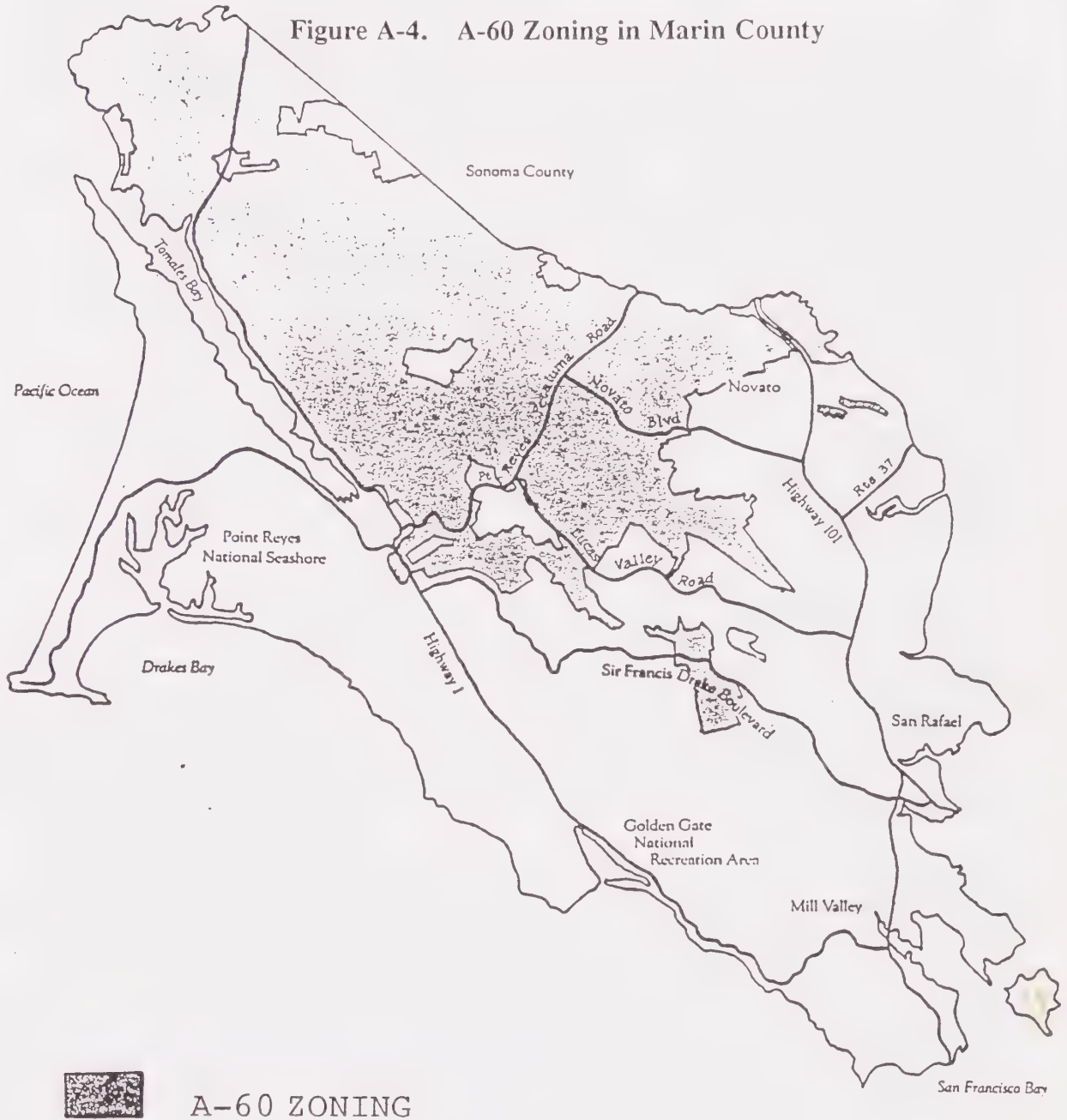


0 1 2 3 6

North



Figure A-4. A-60 Zoning in Marin County





Similar to A districts are A-2 (Limited Agricultural Districts) and R-A (Suburban Agricultural Districts). These districts allow residential uses with more limited agricultural uses. These zones have been applied largely in outlying parcels in the City-Centered Corridor and in the San Geronimo Valley.

The Agricultural Residential Planned District (ARP) was enacted as a result of community concerns about the gradual conversion of agricultural lands to rural residential uses. This district allows commercial uses in addition to agricultural uses. However, any proposed commercial use would require a master plan which shows how the agricultural use will be continued on at least 95% of the property. The Master Plan must also show that the commercial use will be compatible with agricultural activities on surrounding properties. In addition, the ARP district has more stringent design and development standards than the A district, such as a Transfer of Development Rights (TDR) program and a requirement to submit an agricultural management plan. The ARP zoning district has been applied primarily in the Nicasio Valley for implementation of the Nicasio Community Plan and in portions of the San Geronimo Valley.

Of all the agricultural zoning designations, the APZ designation offers the greatest support for agricultural uses. Agricultural lands in the coastal zone were rezoned APZ after adoption of Unit II of the Local Coastal Program in December, 1980. The authority for protection of agriculture in the coastal zone comes from the California Coastal Zone Act statement: "protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal environment and its natural and artificial resources."

Non-agricultural uses permitted in the A and ARP districts are not allowed in the APZ district. However, the APZ district does permit commercial operations that are compatible with agricultural uses.

To ensure the continued agricultural use of lands in Marin County zoned A-60 and ARP-60, the County should consider creation and adoption of a uniformly applied primary agricultural zone like the APZ with application for all agricultural lands in the County. Consideration of this primary agricultural zone should include a determination of development standards, the short- and long-term effects of non-agricultural uses in agricultural districts, the effect of non-agricultural operations on soils, plants; and traffic impacts. In addition, the long-term effect of permitting residential uses in an agricultural area should be reviewed in terms of its effect on land value expectations and incompatibility of uses.

While most West Marin property owners have a long-term commitment to agriculture, strong market pressures and family circumstances can compel an agricultural property owner to pursue subdivision and land development. Given these development pressures, it is important that County zoning and subdivision regulations guide subdivisions in a manner which does not result in smaller and inefficient farming units. Consequently, a reconstituted primary agricultural district should follow the guidelines of the APZ zone. These guidelines require development to be clustered on no more than 5% of the gross acreage, with the remaining acreage to be left in agricultural production or open space.

## 2. Right-to-Farm

As residential uses encroach on land historically used for agriculture, farmers confront opposition from neighbors and find it increasingly difficult to continue operations. Farming activities that residential neighbors oppose include, but are not limited to: hay or silage cutting, which creates noise and dust at odd hours; milk trucks which may run at any time of day or night; and, smells from dairy cattle and beef operations. Residential neighbors may file nuisance claims against such agricultural activities. A right-to-farm ordinance would help to preserve existing agricultural operations by protecting farmers from nuisance complaints by residential neighbors.

Presently, the incompatibility of agriculture and residential uses has not resulted in nuisance complaints primarily because agricultural land uses are buffered by open space. However, as residential uses encroach into rural areas, the possibility of nuisance complaints increases.

One of the main goals of the Countywide Plan is to preserve agricultural land uses. In order for agricultural operations to survive in Marin County, farmers must be able to conduct farming activities as they have in the past as well as explore the use of new farming technologies as they arise. A right-to-farm ordinance would help to preserve existing agricultural operations by protecting farmers from nuisance complaints by residential neighbors.

A right-to-farm ordinance may incorporate one or more of the following:

Declaration that normal farming operations do not constitute a "nuisance" if initiated before a complaining neighbor moved in;

Requirement that sellers, real estate agents, and title companies to inform prospective home buyers that commercial farming operations are close by and that odors, dust, flies and noise may accompany such operations;

Establishment of a grievance or arbitration committee to mediate disputes between farmers and non-farm residents;

Levy of fines for damages resulting from vandalism, pilferage, and loss of livestock from domestic pet predation or other related losses.

### C. LOCAL COASTAL PROGRAM

Marin's Local Coastal Program (LCP) is divided into two geographic units. LCP Unit I, which includes those coastal lands south of Olema, is mostly in Federal park land. LCP Unit II, between Olema and Sonoma County, contains the Point Reyes National Seashore and privately owned agricultural land along Tomales Bay. Together LCP I and II (adopted in 1980 and 1981) amend the Countywide Plan policies for these areas and serve to:

Permanently preserve productive agricultural lands;

Assure that non-agricultural uses do not conflict with agricultural uses and are compatible with the rural character of the coastal zone; and,

Concentrate development in suitable locations.

To implement the policies, the LCP establishes three agricultural zoning districts: 1) the Coastal, Agricultural Production Zone (C-APZ); 2) the Coastal, Agricultural Residential Planned (C-ARP); and, 3) the Coastal, Residential Agricultural (C-R-A District).

Most of the coastal zone is zoned C-APZ. Both the C-APZ and C-ARP districts require master plans for principal permitted uses and use permits for conditional uses. Both have stringent design and development standards. The C-APZ District, for example, requires that:

All development be clustered on no more than 5% of the gross acreage, close to existing roads, and sited in a manner which minimize impacts;

Permanent conservation easements be established over the non-developed portion of the property, with no further subdivision of the parcel;



In addition, the C-APZ district requires the following key findings as a prerequisite for development or subdivision:

Protection and enhancement of continued agricultural use and contribution to agricultural viability;

Necessity of development because agricultural use is no longer feasible;

Development does not conflict with continuation of agriculture on the property or on parcels within one mile of the parcel;

In addition to these requirements, the C-APZ district in particular encourages the consideration of Transfer of Development Rights (TDRs) to relocate development from areas where environmental or land use impacts could be severe to other areas where those impacts can be minimized.

#### D. BAYFRONT CONSERVATION ZONE

The Bayfront Conservation Zone includes lands along the shore of San Francisco and San Pablo Bays containing tidal marshes, seasonal marshes, lagoons, natural wetlands and low-lying grasslands overlying historic marshlands. Some of these lands have been diked off from the bay and used for growing hay and to some extent for grazing cattle. They also provide seasonal wetland habitat for migratory waterfowl and shorebirds and ponding areas for flood control.

Land uses in Bayfront Conservation Areas are outlined in Policy EQ-2.45, which states:

Land uses which provide or protect wetland or wildlife habitat, and/or which do not require diking, filling, or dredging shall be encouraged.... Other land uses which do not require diking, filling or dredging and/or are less protective of habitat value may be permitted when it can be proven that the resulting public benefit exceeds environmental costs and liabilities. Public benefits to be provided in the diked portions of the Bayfront Conservation Zone shall include but not be limited to: public access and recreational opportunities, educational or scientific opportunities, provision of housing (particularly housing developments which include low and moderate income housing), provision of essential water conveyance, transportation or utility services, and protection from floods or other natural hazards.



The County has adopted three policies which deal specifically with agriculture in the Bayfront Conservation Zone. They are:

- Policy EQ 2.58**                      **Protection of existing agricultural lands.** The County shall protect existing agricultural lands in the Bayfront Conservation Zone. These lands are an important resource for the County: they are a visual and scenic resource; they play an integral role in other agricultural and dairy operations in Marin County; they are a productive economic resource; and they are compatible with water-related wildlife habitat. Such agricultural activities could consist primarily of grazing operations harmonious with adjoining marshes, wetlands, grasslands, or other sensitive lands.
- Policy EQ-2.59**                      **Natural vegetation.** Agricultural activities should minimize removal of natural vegetation where possible.
- Policy EQ-2.60**                      **Pesticides, insecticides and similar materials.** Use of pesticides, insecticides, etc. should comply with existing Federal and State standards, as implemented by the County Agricultural Commissioner.

The County has adopted an overlay zoning district in unincorporated bayfront areas which requires an environmental assessment of a property located in that zone prior to development approval. Countywide Plan policies and zoning foster the continuation of agricultural uses in the Bayfront Conservation Zone.

#### **E.      LOCAL AGENCY FORMATION COMMISSION (LAFCo) POLICIES**

The Marin Local Agency Formation Commission is a five-member board consisting of two members of the Board of Supervisors, two city council members and one at-large member. California law enables LAFCo to decide upon the formation, consolidation, and dissolution of cities and special service districts that provide urban services to the residents of Marin. Most frequently, LAFCo decides upon whether new lands may be annexed to existing cities and special service districts so that they may be developed. The Commission's decisions are subject to state law, but are independent of any city or the Board of Supervisors' decisions.

The Marin LAFCo has adopted the following policies regarding agricultural lands:

Land which is currently engaged in the substantial production of food, fiber, or livestock, or is identified as agricultural land, either by zoning classification, Williamson Act contract, or by general plan designation shall not be annexed to a city or a sanitary sewer agency for the purpose promoting urban development. (First adopted July 13, 1977; revised January 13, 1983.)

Development of existing vacant or non-prime agricultural lands for urban uses within a city's and/or special district's jurisdiction or within a city's and/or special district's sphere of influence should be encouraged before any proposal is approved which would allow for or lead to the development of existing agricultural or open space lands for non-agricultural or non-open space uses which are outside of the city's and/or special district's jurisdiction or outside of city's and/or special district's sphere of influence. (Adopted July 13, 1977.)

These policies give LAFCo the ability to deny an annexation which could threaten agriculture in the County while allowing annexations that promote orderly development within recognized service areas.

#### F. WILLIAMSON ACT

The Williamson Act was passed by the California Legislature in 1965. This law allows a property owner to contractually restrict his or her land to agricultural uses for a period of 10 years in exchange for a County tax assessment based on the property value in agricultural use rather than at market value. Improved parcels with homes and other qualifying improvements are also eligible for Williamson Act contracts. The land is valued for agriculture, but the improvements are assessed at 1% of value as set by Proposition 13.

In 1970, the Act was amended to require local governments to establish agricultural preserve boundaries that define those areas within which the County would enter into Williamson Act contracts. The Marin County Board of Supervisors appointed a County Land Conservation Advisory Committee which met through the spring and summer of 1971. The Committee designated the Marin County Agricultural Preserve Zone. The boundaries of the preserve were later amended to allow parcels within one mile of the initial preserve boundaries to be included as well (see Figure A-5). Certain sites, such as the Silveira/St. Vincent's parcels in San Rafael, were specifically excluded from the preserve zone in a later action following implementation of the 1973 Countywide Plan.

Within the preserve zone, the Committee established which lands would be eligible for a Williamson Act contract using the following criteria:

A parcel must be at least 10 acres in size if it is prime agricultural land or 40 acres in size if it is not prime agricultural land (as defined by the USDA Soil Conservation Service).

The dominant use of the land at the time of application for a contract shall be agricultural. The following factors shall be considered to determine whether the use is dominant:

- Capability of the agricultural use to produce a living for the owner;

- The value of the product produced on the land in recent and future years;

- The proportion of time during the year when the agricultural use is in effect;

- The proportion of land devoted to the agricultural use;

- The character of non-agricultural uses on the land.

Although participation is voluntary, the low property taxes which result from a Williamson Act contract are a significant incentive to the maintenance of agriculture. The contract is automatically renewed annually, but the actual tax may change due to a formula involving a capitalization rate set, in part, by the State Board of Equalization. This rate fluctuates from year to year because it is based upon the "average yield rate" of long term U. S. Government bonds as published by the Federal Reserve Board. When interest rates drop, the capitalization rate formula may result in higher real estate taxes for Williamson Act properties, although even these taxes are far lower than they would be under market conditions.

Landowners may withdraw from a Williamson Act contract, if they so choose, nine years after giving notice. Withdrawal begins a nine year procedure which gradually brings the tax up to its unrestricted market value in the tenth year. Alternatively, owners may request cancellation at any time, and are subject to a penalty fee as well as a tax based upon unrestricted value of the land. State law requires such cancellations to be approved by both the Board of Supervisors and the State Department of Conservation. To date, no request for cancellation (which would be effective immediately after execution) has been received in Marin County.



Williamson Act lands can be subdivided to the minimum lot size specified under County zoning. However, Williamson Act contracts allow only one principal residence, regardless of the number of parcels within the contract. Additional units up to the maximum allowed under the zoning classification may be developed for family members or employees engaged in the agricultural use of the land, only after an affirmative finding by the County that such units are reasonably related to the agricultural use of the land.

Certain acreage, zoning, and agricultural production criteria must be met as a condition of the contract. According to the County Assessor, Williamson Act contracts cover some 507 parcels on 95,176 acres in fiscal year 1991-92. In the next four years (1991-1994), contracts on seven agricultural parcels (86.4 acres) will expire. The remaining contracts will be automatically renewed unless property owners file non-renewal requests with the County Assessor. No non-renewal requests have been filed for the 1991-1992 fiscal year.

Figure A-5 shows the current preserve zone boundaries and where contracts are currently in effect.

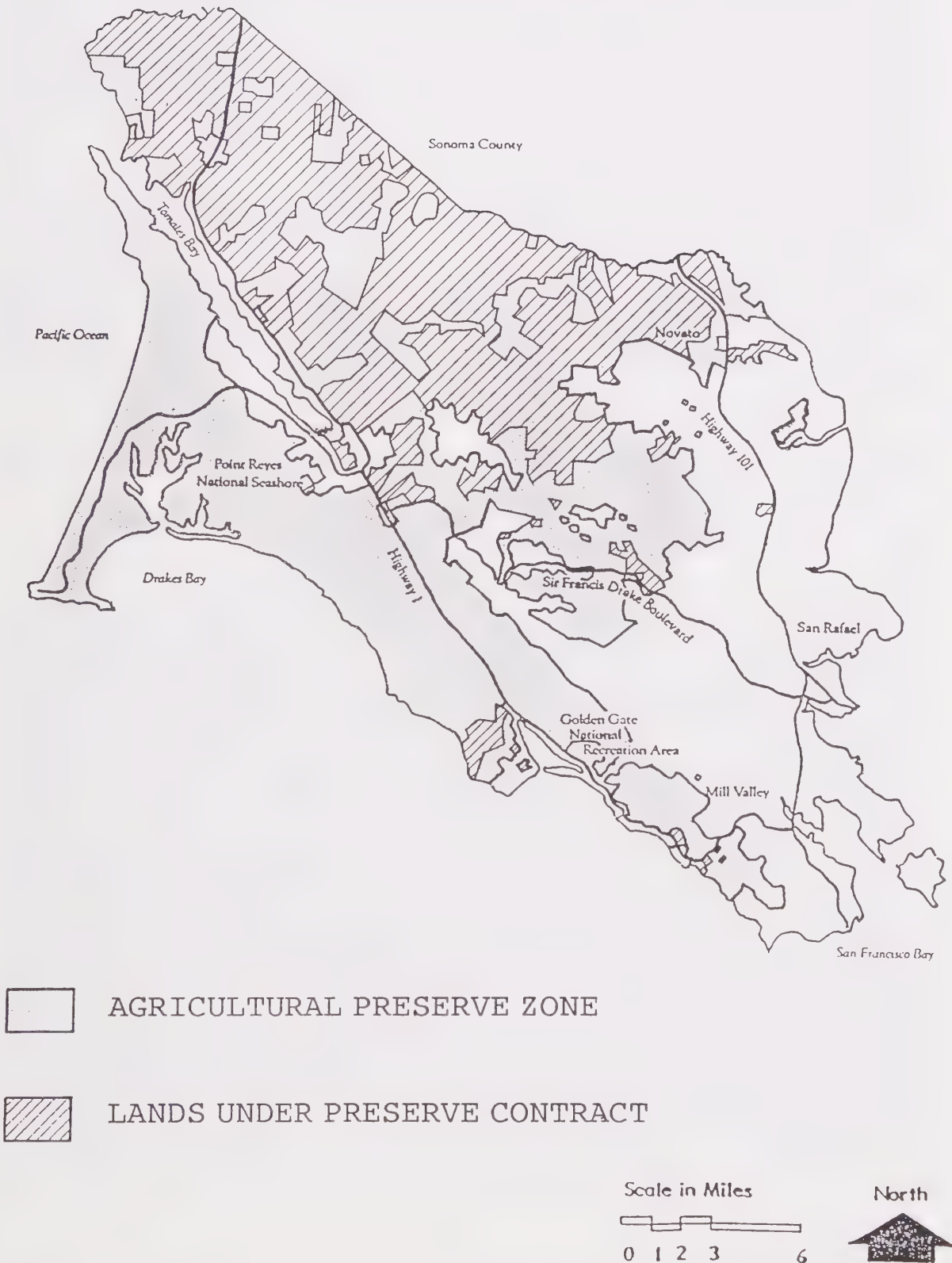
#### G. MARIN AGRICULTURAL LAND TRUST (MALT)

MALT is a private, non-profit organization established to preserve and protect the County's agricultural lands through purchase of conservation easements. A conservation easement is a legal agreement between a landowner and MALT in which the owner places permanent restrictions on future use of his or her property in order to protect its agricultural character and productivity. The easement prohibits some or all subdivisions, residential or commercial development, and uses which would be destructive to the agricultural use and productivity of the land.

The easement does not limit the owner's right to sell, bequeath or otherwise transfer title to his or her land, subject only to the terms of the conservation easement. The purchase of conservation easements provides the agricultural landowner with capital to modernize agricultural operations, pay estate taxes, buy out partners or co-owners, provide for retirement and generally facilitate the generational succession of agricultural land and its continued agricultural use. By acquiring easements, MALT compensates the landowner for giving up the development potential on his or her property, and assures the long-term agricultural future of the land. As of July 1991, MALT held conservation easements on eleven properties representing 14,061 acres of agricultural land.



Figure A-5. Agricultural Preserve Zone  
Lands under Preserve Contract, 1990



Initially, the capital for MALT's agricultural land preservation program came from two grants of \$1,000,000 each, granted in 1984 by the State Coastal Conservancy and Buck Trust. The Marin County Open Space District has also established a cooperative program with MALT whereby 10% of its annual uncommitted acquisition funds are allocated for agricultural land preservation projects through MALT. This figure has averaged about \$35,000 per year.

With the passage of Proposition 70 in June 1988, Marin County received \$15 million dollars with which to purchase agricultural easements. MALT has an agreement with the County to be the principal agent for agricultural easement acquisitions. Over \$2.9 million of that fund has been spent, leaving over \$12 million still available. Easements totalling over \$4.5 million were under negotiation as of July 1991.

#### H. TRANSFER OF DEVELOPMENT RIGHTS

A Transfer of Development Rights (TDR) is a planning and zoning device used to protect land in agricultural use from displacement by development. TDRs allows the development rights on one property (the donor property) to be determined, and provides the means to transfer those development rights to another (receiver) property.

The purpose of such a transfer is to relocate potential development from areas where environmental or land use impacts could be severe to areas where those impacts can be minimized.

A TDR provides a tool for maintaining agricultural uses without interruption and threat from incompatible land uses. Where a TDR is used, the future development of the donor property should be limited by a recorded conservation easement or restriction which notes that development rights have been transferred to another property.

The Marin Countywide Plan recommends use of TDRs as a technique to preserve open space and agricultural lands. The TDR program allows development rights to be transferred to designated areas where development would have fewer environmental impacts. Thus far, authority has been provided in the Marin zoning code to allow consideration of TDRs within the Nicasio Community Plan area on ARP zoned land and within the LCP Coastal Zones on C-APZ zoned land. To date, few transfers of development rights have been accomplished. The use of this mechanism has been inhibited, in part, due to the lack of certainty of appropriate receiver sites. A program, either experimental or comprehensive, should be considered to identify receiver sites for potential development rights transfer.

## I. FEDERAL, STATE AND COUNTY PARKLANDS, WATERSHED, AND OPEN SPACE ACQUISITIONS

The purchase of lands for parks, watershed and open space by the Federal, State and local governments, plus those owned by the water districts and Open Space District has served to reduce development pressures on agricultural lands for several decades. The County's support for these purchases over the years, while stemming largely from a recreational, environmental or open space policy orientation, has had the effect of supporting agricultural endeavors in the Inland Rural Corridor. Table A-6 shows how much land has been acquired by public entities for these uses.

Many counties experience conflicts in areas where residential land uses adjoin agricultural land uses, however Marin County's parks and open space lands frequently provide a buffer between residential and agricultural land uses. The County has zoned land for residential uses on the urban side of the open space lands, and created agricultural zoning on the rural side of the open space lands. This departs from the traditional approach of providing a gradation of land uses and zoning from suburban residential to rural residential to high intensity agriculture. Table A-7 displays the overall land use effect of public ownership.

**Table A-6. Public Use Lands In Marin County**

| <b>Jurisdiction</b>              | <b>Acres</b>   |
|----------------------------------|----------------|
| Federal Park                     | 92,538         |
| State Park                       | 12,853         |
| Marin County Park                | 2,115          |
| Marin Watershed                  | 22,731         |
| County Open Space                | 12,560         |
| Tidelands, Marshlands, Mudflats  | 10,000         |
| <b>Total Lands in Public Use</b> | <b>152,797</b> |
| <b>Total Acreage in County</b>   | <b>388,352</b> |

Source: Marin County Assessor, 1987.

**Table A-7. Land Use Effect of Public Lands  
And Contract Restricted Lands**

| Land Use                                                           | Acres          | Percent     |
|--------------------------------------------------------------------|----------------|-------------|
| Water Area                                                         | 55,424         | 14.3        |
| Public Lands                                                       | 152,797        | 39.3        |
| Contract Restricted (Agricultural and<br>Open Space Contracts)     | 93,093         | 24.0        |
| <i>Subtotal of Lands in Public Ownership</i>                       | <i>301,314</i> | <i>77.6</i> |
| All Other Land Uses (Including<br>Agricultural not under Contract) | 87,038         | 22.4        |
| Total                                                              | 388,352        | 100.0%      |

Source: Marin County Assessor, 1987.



#### IV. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

**Objective A-1. Agricultural Areas.** To enhance and preserve agricultural endeavors in Marin County, primarily in the Inland Rural and Coastal Recreation Corridors.

##### A. PRESERVATION OF AGRICULTURAL AREAS

**Policy A-1.1**                      **Preservation of agricultural lands.** Agricultural lands shall be preserved and soil capability shall be maintained.

Program A-1.1a                Land uses of Inland Rural and Coastal Recreation Corridors. The County shall encourage land uses of an agricultural or open space nature which serve to maintain soil capability for agriculture in the Inland Rural and Coastal Recreation Corridors.

Program A-1.1b                Very Low Density Agricultural Zoning. The County shall maintain very low density agricultural zoning in the Inland Rural and Coastal Recreation Corridors.

Program A-1.1c                Agricultural Zoning Study and Code Revisions. The County shall review and prepare comprehensive revisions to its primary agricultural zoning regulations for the purpose of creating a uniform approach to the preservation of agriculture. Such changes should include mandatory clustering provisions, appropriate development standards, a better description of non-agricultural uses, and the requirement for the use of planned district zoning designations

Program A-1.1d                Transfer of Development Rights. The County shall conduct a study to determine if Transfer of Development Right (TDR) programs should be applied to all lands currently zoned "A" to support continued agricultural uses in Marin County. This study should also consider the appropriateness of designating receiver sites or receiver site areas.

**Policy A-1.2**                      **Agricultural Education.** The County supports agricultural education, and those efforts to help the public understand the importance of agriculture in Marin County and the conservation of land for agricultural use.

**Policy A-1.3**

**Agricultural Parcels.** The County shall strongly discourage subdivision of agricultural lands. If subdivision of agricultural land occurs, development shall be clustered in a manner which encourages the maximum protection of agricultural lands.

**Program A-1.3a**

Williamson Act Parcels. The County should add a clause to all future Williamson Act contracts which prohibits subdivision of the land under Williamson contract for the duration of the contract.

**Policy A-1.4**

**Development in Agricultural Areas.** If subdivision of agricultural lands occurs, the County shall require clustering or grouping together of allowable dwelling units on relatively small parcels comprising not more than 5% of the total area of the parcel(s) being subdivided. Conversely, 95% of the total area of the parcel(s) being subdivided shall be preserved for agriculture or open space.

**Program A-1.4a**

Agricultural Zoning and Subdivision Regulations Revision. The County shall prepare and adopt modifications to its agricultural zoning and subdivision codes which create a uniform approach to preservation of agricultural lands. Such modifications shall include requirements for clustering of subdivided lots and permanent preservation of 95% of the gross acreage for agriculture and open space purposes. These issues shall be reflected in zoning regulations program identified in Program A-1.1c.

**B. AGRICULTURAL EASEMENTS**

**Policy A-1.5**

**Agricultural Easements.** The County shall encourage the acquisition and/or dedication of permanent agricultural easements in order to foster preservation of agricultural lands for agricultural uses.

**Program A-1.5a**

Agricultural Easements Program. The County shall establish a program to obtain agricultural easements or to assist in the purchase of such easements by an appropriate agency or non-profit land trust.

## C. AGRICULTURAL LANDS IN THE CITY-CENTERED CORRIDOR

### Policy A-1.6

**Agricultural Lands in the City-Centered Corridor.** Recognizing that agricultural land is a non-renewable resource, the County will, to the extent feasible and legal, preserve productive agricultural land in the City-Centered Corridor located in the Bayfront Conservation Zone. Development projects which would affect such lands should be designed to minimize loss of or mitigate impacts on agricultural production.

#### Program A-1.6a

Identify Agricultural Lands in the City-Centered Corridor. The County shall identify productive agricultural lands in the City-Centered Corridor located in the Bayfront Conservation Zone which might be preserved, if a reasonable return on agricultural property can be realized.

### Policy A-1.7

**Intensity of Agricultural Use.** On lands in the City-Centered Corridor located in the Bayfront Conservation Zone which are suitable for agricultural preservation, the County should encourage intensive agriculture for food production, in addition to traditional agricultural uses like dairying and hay production. Such innovative programs should be consistent with wetlands and habitat preservation policies.

#### Program A-1.7a

Use of Reclaimed Water for Agriculture. Where available and consistent with health standards, use of reclaimed water for agricultural lands in the City-Centered Corridor should be encouraged.

### Policy A-1.8

**Bayfront Conservation Zone (BFC).** The County will continue to observe BFC Zone policies for agricultural lands in the BFC Zone. These policies call for the preservation of agricultural land in the context of a balance between agriculture, other public benefit land uses, and environmental quality.

#### Program A-1.8a

Establishment of Agricultural Land Mitigation Fund. An agricultural preservation fund should be established and supported in part by mitigation funds contributed where a development has reduced the agricultural capacity of the parcel(s), provided an appropriate nexus can be found.

Program A-1.8b      Maintenance of Production Capacity. Any development of land in the Bayfront Conservation Zone reducing the amount of agricultural land available should, to the extent feasible, employ mitigation measures, which at a minimum, maintain the productive capacity of the remaining acreage at the historic level of the total available land.

#### D. AGRICULTURE ON FEDERAL PARK LANDS

**Policy A-1.8**      **Agricultural land uses within Federal Park Lands.** The County supports the continuation of ranching operations and other agricultural land uses within the "pastoral zones" of the Point Reyes National Seashore and the Golden Gate National Recreation Area.

Program A-1.8a      Long-Term Tenure Agreements in Federal Parklands. The County encourages the National Park Service to enter into long term tenure agreements (leases) with ranchers in order to provide the ranching families with sufficient security to profitably operate agriculture in the "pastoral zones."

Program A-1.8b      Range Management Guidelines. The County supports the National Park Service's use of Range Management Guidelines for management of the "pastoral zones," in the Federal parklands as adopted in April 1988.

#### E. NON-AGRICULTURAL LAND USES IN RURAL AREAS

**Policy A-1.9**      **Non-Agricultural Land Uses.** Nonagricultural land uses should be supportive of agricultural land uses and should be compatible with the rural character of the Inland Rural and Coastal Recreation corridors.

Program A-1.9a      Location of Non-Agricultural Zoning Districts. The County shall maintain non agricultural zoning districts only in areas where conflict with agricultural uses shall be minimized and which contain development standards to ensure preservation and enhancement of agricultural uses.



- Program A-1.9b      Transfer of Development Rights (TDRs). The County shall encourage use of Transfer of Development Rights from agricultural areas to areas more suitable for development.
- Program A-1.9c      Receiver and Donor Sites. The County may require master plans for both receiver and donor sites in which transferred development rights are a factor.
- Program A-1.9d      Right-to-Farm Ordinance. The County shall consider adoption of a right-to-farm ordinance which protects agricultural operations from nuisance complaints by adjacent non-agricultural property owners about certain allowable agricultural procedures such as spraying, fertilizing and harvesting. This ordinance would set up a grievance procedure to address the needs of all concerned.
- Program A-1.9e      Non-Agricultural Uses. As part of Program A-1.1c, the County shall consider the effects of non-agricultural operations (such as horse boarding, breeding and training operations or other operations not involving the production of food or fiber) on traditional agricultural operations (dairy, beef or sheep).

# **COMMUNITY FACILITIES ELEMENT**



## COMMUNITY FACILITIES ELEMENT

### TABLE OF CONTENTS

|                                                      |    |
|------------------------------------------------------|----|
| I. INTRODUCTION.....                                 | 1  |
| A. LEGAL AUTHORITY .....                             | 1  |
| B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS.....  | 1  |
| C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS..... | 2  |
| D. ORGANIZATION OF THE ELEMENT .....                 | 2  |
| II. EXISTING CONDITIONS AND PROJECTIONS .....        | 2  |
| A. URBAN SERVICE AREA AND SPHERE OF INFLUENCE .....  | 2  |
| 1. Issues Within the City-Centered Corridor .....    | 4  |
| a. Sausalito.....                                    | 4  |
| b. Tiburon.....                                      | 4  |
| c. Belvedere.....                                    | 5  |
| d. Mill Valley .....                                 | 5  |
| e. Corte Madera.....                                 | 5  |
| f. Larkspur.....                                     | 5  |
| g. San Rafael .....                                  | 6  |
| h. Ross.....                                         | 6  |
| i. San Anselmo .....                                 | 6  |
| j. Fairfax .....                                     | 6  |
| k. Novato .....                                      | 7  |
| 2. Outside the City-Centered Corridor .....          | 7  |
| III. SERVICE PROVISION .....                         | 7  |
| A. WATER SERVICES .....                              | 7  |
| 1. Marin Municipal Water District.....               | 8  |
| 2. North Marin Water District.....                   | 9  |
| 3. Stinson Beach County Water District.....          | 9  |
| 4. Bolinas Community Public Utility District .....   | 9  |
| 5. Inverness Public Utility District.....            | 9  |
| 6. Dillon Beach .....                                | 10 |
| B. WASTEWATER SERVICES .....                         | 10 |
| 1. Sewerage Agency of Southern Marin.....            | 10 |
| 2. Central Marin Sanitation Agency .....             | 11 |
| 3. Sausalito/Marin City Sanitary District .....      | 11 |
| 4. Sanitary District #5.....                         | 11 |
| 5. Seafirth Treatment Plant.....                     | 11 |
| 6. Las Gallinas Valley Sanitation District.....      | 12 |
| 7. Novato Sanitation District.....                   | 12 |
| 8. West Marin.....                                   | 12 |



|                                                                  |    |
|------------------------------------------------------------------|----|
| C. FIRE PROTECTION .....                                         | 13 |
| 1. Novato Planning Area .....                                    | 13 |
| 2. Las Gallinas Valley and San Rafael Basin Planning Areas ..... | 13 |
| 3. Upper Ross Valley Planning Area .....                         | 14 |
| 4. Lower Ross Valley Planning Area .....                         | 14 |
| 5. Richardson Bay Planning Area .....                            | 14 |
| 6. West Marin .....                                              | 15 |
| D. POLICE PROTECTION .....                                       | 15 |
| E. OTHER COMMUNITY FACILITIES AND SERVICES .....                 | 15 |
| 1. School Facilities .....                                       | 15 |
| 2. Childcare .....                                               | 16 |
| 3. Telecommunications .....                                      | 17 |
| 4. Waste Management .....                                        | 18 |
| IV. OBJECTIVES, POLICIES AND PROGRAMS .....                      | 20 |

## LIST OF TABLES

|                                                                     |    |
|---------------------------------------------------------------------|----|
| CF-1. Water Availability.....                                       | 8  |
| CF-2. Sanitary Treatment Plan Design Capacities (Dry Weather) ..... | 10 |
| CF-3. Children in Licensed Child Care Programs in Marin County..... | 16 |

## LIST OF FIGURES

|                                                                                                            |    |
|------------------------------------------------------------------------------------------------------------|----|
| CF-1. Urban Service Area Concept .....                                                                     | 3  |
| CF-2. Sausalito Community Facilities .....                                                                 | 25 |
| CF-3. Tiburon Community Facilities .....                                                                   | 26 |
| CF-4. Belvedere Community Facilities .....                                                                 | 27 |
| CF-5. Mill Valley Community Facilities .....                                                               | 28 |
| CF-6. Corte Madera Community Facilities.....                                                               | 29 |
| CF-7. Larkspur Community Facilities .....                                                                  | 30 |
| CF-8. San Rafael Community Facilities .....                                                                | 31 |
| CF-9. Ross Community Facilities .....                                                                      | 32 |
| CF-10. San Anselmo Community Facilities.....                                                               | 33 |
| CF-11. Fairfax Community Facilities .....                                                                  | 34 |
| CF-12. Novato Community Facilities.....                                                                    | 35 |
| CF-13. Inland Rural Corridor Community Facilities .....                                                    | 36 |
| CF-14. Coastal Community Facilities (Bollinas, Stinson Beach and Muir<br>Beach).....                       | 37 |
| CF-15. Coastal Community Facilities (Tomales, Marshall, Inverness,<br>Point Reyes Station, and Olema)..... | 38 |
| CF-16. Marin County Fire Districts.....                                                                    | 39 |
| CF-17. State Responsibility Areas .....                                                                    | 40 |
| CF-18. Marin County School Districts.....                                                                  | 41 |



## I. INTRODUCTION

The Community Facilities Element addresses four major community services: police, fire, water, and sewer. In addition, other community facilities are discussed: schools, childcare, and telecommunications.

Community facilities were addressed to some extent in the "Plans for Planning Areas" section of the 1982 Countywide Plan. However, the 1982 plan did not contain a separate Community Facilities Element. This element expands on the discussion of urban service areas and service availability in the 1982 Countywide Plan.

### A. LEGAL AUTHORITY

A community facilities element is not a required element under State law. However, California planning law states that "the general plan may include any elements or address any...subjects which...relate to the physical development of the county or city" (Government Code Section 65303). The general plan guidelines prepared by the Office of Planning and Research state that "local governments may underscore their interest in public services and facilities by adopting an optional public facilities element."

The County developed an extensive database which identifies all existing and planned public facilities, as required by the California Government Code Section 65302(a). Because the availability of these public services may influence future land use patterns, it is important to include the Community Facilities Element as part of the Countywide Plan.

### B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Community Facilities Element is related to other elements, which address community facilities in the following manner:

*Community Development and Housing Elements:* Growth encouraged in areas with adequate public services and facilities.

*Environmental Hazards Element:* Discusses hazards which threaten life and property.

*Parks and Recreation Element:* Provides an inventory of parks, which are a community facility, and discusses recreation services.

*Trails Element:* Identifies fire roads used for recreation.



*Transportation Element:* Discusses the need for transportation access, which is critical for provision of public services, like firefighting.

## C. RELATIONSHIP TO OTHER GENERAL PLAN DOCUMENTS

This element is based on the findings in Community Facilities Technical Report #1, Provision of Services in Marin. Two policies in the Energy Element Technical Report #1 have been integrated into this element.

## D. ORGANIZATION OF THE ELEMENT

First, the Element describes and maps the sphere of influence of each of Marin's eleven cities. Next, the element describes provision of water, wastewater, fire, police, and other (school, childcare, telecommunications) services. Parks, also a community facility, are discussed in detail in the Parks and Recreation Element.

In order to maximize the efficiency of existing facilities, the objectives, policies, and programs of this element encourage growth in areas where services and facilities are available.

# II. EXISTING CONDITIONS AND PROJECTIONS

## A. URBAN SERVICE AREA AND SPHERE OF INFLUENCE

In accordance with the Knox-Nisbet Act of 1972, the Local Agency Formation Commission (LAFCo) establishes a sphere of influence (SOI) for each city. The SOI designates the probable ultimate physical boundaries and service area of a local government agency. An urban service area is the area within the SOI where urban development patterns can best be accommodated over the next five to ten years, given the availability of services and revenues (see Figure CF-1). The geographical boundaries of the urban service area are a function of several factors, the most important of which include:

- Development potential and growth rate of the area;

- Availability of vacant land to accommodate growth;

- Availability and ability of existing services to accommodate growth, and;

- Discouraging urban sprawl.

There are basic differences in the nature and function of city and County governments. Urban development requires the provisions of services such as police, fire, sewer, and water. These services are generally available or can be made available within incorporated areas. However, many unincorporated areas of the County are located in rural areas which have limited services and are unsuitable for urban levels of development. Many of the policies in this element direct growth toward the cities and discourage development where facilities are not available.

**Figure CF-1. Urban Service Area Concept**



The urban service area should be viewed as an area that represents a logical, orderly expansion of urban development patterns. Proposals for development in an urban service area must be reviewed by both the city and County.

It is desirable for unincorporated land within an urban service area to annex to the city at the time of development. Through rezoning of the unincorporated land, a city can demonstrate its intention to annex the land. The County should encourage developers to consult with the respective cities, and County development standards should reflect the various city objectives with its urban service area.

Islands of unincorporated territory are scattered throughout nearly all of Marin County's eleven cities. These islands create serious problems for the provision of public services. Special district service vehicles must travel through cities to provide sheriff, fire, and other services. In addition, confusion may arise in determining which agency has jurisdiction. Because many of these unincorporated areas could be more efficiently served by a city, efforts should be made to encourage annexation of the unincorporated islands.

There are eleven cities in Marin County. Eight of Marin's eleven cities are considering minor changes to their sphere of influence boundaries. Figures CF-2 through CF-12 show each city's urban service area, sphere of influence, and location of public buildings such as schools, police and fire stations, libraries, government centers, and post offices.

#### 1. Issues Within the City-Centered Corridor

The designation of urban service area and sphere of influence boundaries may affect the future development pattern in an area. The following section addresses the issues in each of Marin's eleven cities.

##### a. Sausalito

The Sausalito sphere of influence (SOI) extends northward from the Sausalito city limits, including the houseboat area and heliport east of Highway 101 and Marin City on the west (see Figure CF-2). There have been minor revisions to the SOI proposed along the northern edge of Coyote Canal. These revisions will be further evaluated by LAFCo at the request of Sausalito. The Marin City area is a large unincorporated area located within the Sausalito urban service area. It is unlikely that this area will be annexed to Sausalito in the next ten years. However, a development is likely to occur because Marin City is the site of a County redevelopment plan.

##### b. Tiburon

The Tiburon sphere of influence (SOI) extends eastward from Highway 101 and includes the Strawberry area, portions of Ring Mountain, and all of the Tiburon Peninsula except the City of Belvedere. Approximately half of the area is unincorporated (see Figure CF-3). Along Paradise Drive, some pockets of incorporated land are interspersed with unincorporated development. The major growth areas in the Tiburon SOI are in the unincorporated community of Strawberry.



c. Belvedere

This city is fully developed, except for a few parcels. No unincorporated areas fall within the City's sphere of influence (see Figure CF-4). All services are available and have recently been upgraded, or are undergoing improvement.

d. Mill Valley

The Mill Valley sphere of influence lies to the west of Highway 101 and is bordered by Sausalito to the south and Corte Madera to the north (see Figure CF-5). A number of unincorporated communities fall within the Mill Valley sphere of influence, including Alto, Almonte, Tamalpais Valley, Homestead, Muir Woods Park, and Tennessee Valley. The Tamalpais Community Plan is the policy document guiding much of the development in this area.

Isolated pockets of urban development such as Alto should be included in the urban service area, and considered for annexation as provided for by the policies in this Element. The Muir Woods Park area is excluded, because it is not served by the same agencies as the City of Mill Valley and geological constraints render it unsuitable for much further development.

e. Corte Madera

The town limits of Corte Madera are nearly coterminous with its sphere of influence (see Figure CF-6). Only three unincorporated areas fall within Corte Madera's sphere of influence, Lucky Drive, Greenbrae Boardwalk, and Ring Mountain. Since the only access to the Greenbrae Boardwalk area is through Larkspur, consideration should be given to shifting Greenbrae Boardwalk from Corte Madera's sphere of influence to that of Larkspur.

f. Larkspur

The City of Larkspur's sphere of influence stretches from the Marin Municipal Water District's watershed in the west to the end of the San Quentin Peninsula in the east (see Figure CF-7). Approximately one-third of the population within the sphere of influence resides outside the city, including the well-established unincorporated communities of Greenbrae, Kentfield, and Kent Woodlands. Because the potential residential and commercial development in the unincorporated communities is minimal, it is unlikely to have much of an impact on city services. The main issue in the Larkspur sphere of influence is the Greenbrae Boardwalk. It is recommended that the Greenbrae Boardwalk area be included in the Larkspur SOI, because the only access to Greenbrae Boardwalk is through Larkspur.



g. San Rafael

The San Rafael sphere of influence extends over two alluvial valleys, the Las Gallinas and the San Rafael basins (see Figure CF-8). Most of the area in the Las Gallinas Valley is unincorporated and includes the communities of Lucas Valley, Marinwood, Los Ranchitos, and Santa Venetia. The City has shown little interest in annexing the several large and developed unincorporated islands, partly because these areas would require substantial public investment to bring services up to the city's standards.

h. Ross

The Ross sphere of influence lies along the western edge of the City-Centered Corridor and is bounded by San Anselmo to the north, San Rafael to the east, and Kentfield to the south (see Figure CF-9). The Town of Ross is essentially built out and the only undeveloped, unincorporated lands within its service area are owned by the Marin Municipal Water District. The town has designated these lands as "Public Park and Open Space" in its general plan, with the intent of maintaining them for open space and/or recreational purposes.

LAFCo is currently working on a study of the Ross sphere of influence. Preliminary findings indicate that the Ross General Hospital site should be included within the Ross SOI, and eventually annexed to the town. This site has been designated as higher density residential (15-20 units/acre) in the Ross General Plan.

i. San Anselmo

The San Anselmo sphere of influence is bounded by Fairfax on the west, San Rafael on the east, and Ross on the southern border (see Figure CF-10). The town is nearly built out and in the one large unincorporated residential area, Sleepy Hollow, the residents prefer to remain in an unincorporated area.

j. Fairfax

The Fairfax sphere of influence covers a large area, much of which lies in public or quasi-public uses (see Figure CF-11). Because unincorporated areas have developed adjacent to or just beyond town limits, sheriff's deputies and firefighters must travel on city streets to reach their destination. The Town of Fairfax should prezone all unincorporated lands within the urban service area.

k. Novato

The current Novato sphere of influence extends to the northern end of Marin County's City-Centered Corridor and/or the northern city limit boundary (see Figure CF-12). The areas within the urban service area and the sphere of influence will probably continue to feel intense development pressure. Major unincorporated areas on the city's fringe include Blackpoint, Atherton Avenue, Pinheiro Ridge, North Novato, West Novato, and Indian Valley. Significant growth opportunities still remain within both incorporated and unincorporated areas of Novato's sphere of influence.

The future of the Pinheiro Ridge and North Novato Area have generated a great deal of interest. Both of these areas are outside the urban service area as defined by LAFCo, but within the SOI. There are discrepancies between the urban service area boundaries defined by LAFCo and the boundaries defined by the City. This issue should be resolved with the next update of the Novato General Plan and the Novato Sphere of Influence Study. In addition, the SOI boundary should be adjusted to account for the discrepancy between City-Centered Corridor and SOI boundaries.

2. Outside the City-Centered Corridor

Many community facilities exist outside of the City-Centered Corridor, including fire stations and schools. Figure CF-13 shows the facilities located within the Inland Rural Corridor and Figures CF-14 and CF-15 show facilities located in coastal communities.

### III. SERVICE PROVISION

#### A. WATER SERVICES

Marin County is served by five water districts (see Table CF-1). These districts obtain water from reservoirs, groundwater, and interties with other agencies. The water district is responsible for providing water to residents and seeking new sources of water when water demand projections indicate that a long-term supply problem may arise. Water demand forecasting may be done using population projections, buildout scenarios, and estimates of per capita water use. Water districts should review trends in population growth and water use on an ongoing basis, in order to avoid a long-term supply problem. Table CF-1 summarizes water availability in Marin County.

**Table CF-1. Water Availability**  
(acre-feet per year)

| Water District                      | 1987 Supply | 1987 Demand |
|-------------------------------------|-------------|-------------|
| Marin Municipal Water District      | 35,000      | 33,000      |
| North Marin Water District          | 13,950      | 9,803       |
| Stinson Beach County Water District | 323         | 184         |
| Bolinas Public Utility District     | 175         | 175         |
| Inverness Public Utility District   | 392         | 95          |

1. Marin Municipal Water District

The Marin Municipal Water District (MMWD) serves approximately 167,000 people in southern and central Marin County. The MMWD obtains its water supply from several reservoirs within its boundaries and from an intertie line to the Russian River. The District's present water supply system is capable of delivering 35,000 acre-feet annually. However, the District has determined that the present system has a net safe yield of 30,000 acre-feet. During a two year drought this water production level could be maintained if consumers conserved 15% during the first year and 35% during the second year. Between 1986 and 1987, demand was 32,852, which left only 2,148 acre-feet available for additional development. Most of this surplus water has been allocated for projects that are in the planning stages. The MMWD has instituted a moratorium on new water hookups in response to its projected long-term water problems.

The MMWD projects that population in the district will reach 199,000 by the year 2000, creating an annual water demand of 39,000 acre-feet. The District may be able to increase its production by improvements to the delivery system and has prepared a Master Water Plan to identify new sources of water.

A capital projects bond issue has been placed on the November 1991 ballot, in an effort to finance two principal sources of new water supply: desalination and purchase of Sonoma County water.



## 2. North Marin Water District

The North Marin Water District (NMWD) provides water to the City of Novato and surrounding areas. The NMWD has two sources of water: Stafford Lake and the Sonoma County Water Agency. Annual water production between 1986 and 1987 was 9,803 acre-feet. The District's safe annual yield is 13,950 acre-feet, which leaves a surplus of 4,147 acre-feet for additional development. The NMWD is negotiating with the Sonoma County Water Agency for an additional water contract supply of approximately 6,500 acre-feet. This additional water would increase the District's total safe annual yield to 20,450 acre-feet, the projected amount of water needed by 2010.

## 3. Stinson Beach County Water District

The Stinson Beach County Water District (SBCWD) serves water to 600 connections, including residential, commercial, and State and Federal Park recreational uses. In 1987, the SBCWD produced 184 acre-feet of water. The water supply estimate is 323 acre feet, assuming normal rainfall conditions. Although the water supply is adequate, summertime visitors create a period of high peak demand. Supply can be constrained by drought conditions and peak demand.

## 4. Bolinas Community Public Utility District

The Bolinas Community Public Utility District (BPUD) provides water to 559 residential connections, three agricultural connections, and nineteen commercial connections. The District has an estimated annual safe yield of 175 acre-feet, which is equal to the demand in 1987. Because of the limited water supply, Bolinas has had a moratorium on new water hookups in effect since 1971.

## 5. Inverness Public Utility District

The Inverness Public Utility District serves approximately 530 connections. The District has estimated that ultimate development will result in a total of 600 connections, roughly 13% over present demand. In 1987, the IPUD produced 95 acre-feet of water.

Water supply problems may arise during summer peak use periods and during a drought, although supplies appear to be sufficient under normal rainfall conditions. The District has instituted a conservation program in order to alleviate problems during peak use periods.



## 6. Dillon Beach

Water supply to the town of Dillon Beach is provided by two privately owned water companies: Coast Springs Water Company and Estero Mutual Water Company. Both companies receive water from local wells. Coast Springs has 200 service connections and Estero Mutual has 102 service connections.

### B. WASTEWATER SERVICES

There are nine sanitary treatment plants in Marin County and each plant may serve several agencies. Table CF-2 shows design capacity and demand in 1991.

**Table CF-2.**  
**Sanitary Treatment Plan Design Capacities**  
(Dry Weather)

| Agency                     | Capacity<br>(MGD) in<br>1987 | Flows<br>(MGD) in<br>1987 | % Capacity<br>Remaining in<br>1987 | Year<br>Capacity<br>Reached |
|----------------------------|------------------------------|---------------------------|------------------------------------|-----------------------------|
| Sausalito/Marin City       | 1.73                         | 1.50                      | 13                                 | 2001                        |
| SASM                       | 2.90                         | 2.60                      | 10                                 | 2003                        |
| San. District #5           | 0.98                         | 0.75                      | 23                                 | 2001                        |
| CMSA                       | 10.00                        | 7.90                      | 21                                 | 2001                        |
| Las Gallinas San. District | 2.92                         | 2.55                      | 13                                 | 1996                        |
| Novato                     |                              |                           |                                    | 2001                        |
| "Novato"                   | 4.60                         | 3.14                      | 32                                 |                             |
| "Ignacio"                  | 2.10                         | 1.63                      | 22                                 |                             |
| Bolinas P.U.D.             | .07                          | .03                       | 54                                 | 2000                        |

### 1. Sewerage Agency of Southern Marin

The Sewerage Agency of Southern Marin (SASM) has six member agencies providing sanitary collection services: the Richardson Bay Sanitation District; the City of Mill Valley; the Tamalpais Community Services District; the Alto Sanitary District; the Almonte Sanitary District; and the Homestead Sanitary District. The SASM service population is approximately 25,000.

Wastewater is pumped to the treatment plant located in Mill Valley. The plant is designed to process a maximum dry weather flow of 2.9 million gallons per day. Average dry weather flows between 1985 and 1987 were 2.58, or 89% of plant capacity. Estimates indicate that plant capacity may be exceeded in ten to twenty years.

More detailed information on each member agency is available in Technical Report # 1, Community Facilities.

2. Central Marin Sanitation Agency

The Central Marin Sanitation Agency (CMSA) was formed in 1979 to oversee planning, construction and operation of a wastewater treatment plant in central Marin. CMSA member agencies are: Sanitary District #1, Sanitary District #2, the City of Larkspur, and the San Rafael Sanitation District.

CMSA's dry weather design capacity is ten million gallons per day. In 1987, dry weather flows were 7.9 million gallons per day. It is possible that actual operating capacity may exceed the dry weather design capacity of ten million gallons per day. Therefore, the plant's capacity should be reevaluated before additions to the plant are considered.

3. Sausalito/Marin City Sanitary District

The Sausalito/Marin City Sanitary District provides treatment for the City of Sausalito and Marin City.

4. Sanitary District #5

Sanitary District #5 serves portions of Tiburon and neighboring incorporated areas and provides services for collection and treatment of sewage. In some areas, problems persist with wet weather infiltration but the district has instituted improvement programs. The District will not reach its capacity, due to a reduction in projected buildout levels in its jurisdiction.

5. Seafirth Treatment Plant

The Seafirth treatment plant is located between Corte Madera and Tiburon and provides sanitary treatment for approximately 100 homes. This plant has had ongoing operating problems and residents have requested annexation to either Tiburon or Corte Madera. However, neither agency has agreed to annexation because of the difficulties in providing sewer service. LAFCo is evaluating the situation.

6. Las Gallinas Valley Sanitation District

The Las Gallinas Valley Sanitation District (LGVSD) maintains a treatment plant, which was upgraded in 1983. Currently, maximum dry weather flow design capacity is 2.92 million gallons per day. In 1987, dry weather flows were 2.55 million gallons per day.

The plant is expected to be at capacity by 1992. Minor plant expansion could be accomplished by 1996. Additional development, such as the St. Vincent's/Silveira property, would require a major expansion project and purchase of additional land for wastewater irrigation.

7. Novato Sanitation District

The Novato Sanitation District (NSD) operates treatment plants in Novato and Ignacio. The Novato plant was upgraded in 1987 and provides tertiary treatment. The plant has a maximum dry weather flow capacity of 4.6 million gallons per day and sufficient capacity to meet buildout as projected by the Novato General Plan to the year 2001.

In 1986, major improvements were completed at the Ignacio plant. It now has a dry weather flow capacity of 2.1 million gallon per day. This plant will undergo improvements in order to provide better water quality and increase capacity. The Ignacio plant will eventually serve development on the Hamilton site.

8. West Marin

In West Marin, the Bolinas Community Public Utility District (BCPUD) provides collection, treatment, and maintenance for the Bolinas sewer system. Only about one third of the buildings in the community are hooked up to the system. The rest are on septic systems.

The treatment plant was built in 1975 and is designed to treat up to 65,000 gallons per day in the year 2000. The District uses the reclaimed water to irrigate 65 acres of land. There is no outfall of treated wastewater. In 1987, the plant was at 46% of capacity.

In Dillon Beach, sewer service to the Oceana Marin subdivision is provided by the North Marin Water District. The gravity system flows to a lift station and effluent is discharged into two 3-million gallon ponds located on the ridge top east of the subdivision. The remainder of the Dillon Beach community uses septic systems.



The town of Tomales opened a new sewage collection and service system in 1977. The system is designed to handle waste from the existing residences and commercial establishments, the school facilities and approximately 50 new residential units. Any development beyond that would require expansion of the treatment plant facilities.

The remainder of West Marin communities, including San Geronimo Valley, Olema, Stinson Beach, and coastal communities are on septic systems.

## C. FIRE PROTECTION

Fire protection in Marin County is provided by the sixteen fire protection districts shown in Figure CF-16. The State provides fire protection in the State Responsibility Area shown in Figure CF-17. The locations of the fire stations are shown on the community facilities maps, Figures CF-2 through CF-15. As discussed in the Environmental Hazards Element, fire regulations are not uniformly applied to new development in unincorporated areas. Ministerial applications like building permits need only meet the standards of the County Fire Code. County Planning staff reviews discretionary applications, such as subdivision and design review applications, and may recommend compliance with fire district requirements. Fire district requirements are generally more restrictive than the County Fire Code.

### 1. Novato Planning Area

The Novato Fire Protection District provides fire protection for the entire Novato Planning Area. Some areas are beyond the critical five-minute response time. The District requires that new development have non-combustible roofing materials, routine brush clearance, and, in some cases, sprinklers. The District has an adopted master plan calling for the relocation of two stations. Relocation will improve service to the northeastern portion of the District. A new station will be needed to serve development on Hamilton Air Force Base.

### 2. Las Gallinas Valley and San Rafael Basin Planning Areas

The San Rafael Fire Department serves the City of San Rafael. Service Area 19 (CSA 19) protects Santa Venetia, Los Ranchitos, and unincorporated islands in the San Rafael sphere of influence. The Marinwood Fire Department serves Lucas Valley.

Fire protection in these areas is generally adequate. However, increases in staff may be needed in Terra Linda to respond to increased service demands.



### 3. Upper Ross Valley Planning Area

The Upper Ross Valley Planning Area is protected by the Ross Valley Fire Department (RVFD) and the Ross Fire Department. The RVFD serves Fairfax and the entire San Anselmo sphere of influence, including Sleepy Hollow. The Department is capable of serving all areas within the sphere of influence as long as detection and/or extinguishing systems are required in all structures located beyond a five-minute response time.

The Ross Fire Department provides fire protection to the Town of Ross. Because Ross is nearly built out, the town does not plan to expand its fire department.

### 4. Lower Ross Valley Planning Area

The Lower Ross Valley Planning Area is protected by the Corte Madera Fire Department, Larkspur Fire Department, Kentfield Fire Protection District, and the County Fire Department located in Marin City. Providing service to this area can be difficult, as some locations are beyond a five-minute response time and hillside areas may have limited access. The County Fire Department is responsible for providing fire protection to San Quentin Prison.

### 5. Richardson Bay Planning Area

The Richardson Bay Planning Area is protected by the Mill Valley Fire Department (MVFD), Tamalpais Fire Protection District (TFPD), Sausalito Fire Department, and the Tiburon Fire Protection District. Some areas in the Mill Valley Fire Department's jurisdiction are beyond the desired five-minute response time. Inadequate water flows create problems throughout the planning area. Some of the water mains can carry only 500 gallons per minute rather than the 1,500 gallons per minute often used as the standard for insurance rating purposes.

The unincorporated areas in the Sausalito sphere of influence are the responsibility of the County Fire Department. The nearest station is located in Marin City and all structures in Marin City can be reached within five minutes.

## 6. West Marin

The Bolinas Fire Protection District, Inverness Public Utility District, and Stinson Beach Fire Protection District provide fire protection for these West Marin communities. The agencies rely heavily on volunteers and fire protection is adequate. The remainder of West Marin including San Geronimo Valley, Point Reyes Station, Olema, and Tomales fall within the State Responsibility Area. The State contracts with the County to provide fire protection for the State Responsibility Area.

### D. POLICE PROTECTION

Police protection in the incorporated cities is provided by each city's police department. Unincorporated areas are protected by the County Sheriff. There are County Sheriff stations at the Marin County Civic Center, Marin City, and Kentfield. The Marin City station is the busiest in the county and could benefit from additional officers.

Police protection in the county is generally adequate and the locations of the police stations are shown on the community facilities maps, Figures CF-2 through CF-15.

### E. OTHER COMMUNITY FACILITIES AND SERVICES

#### 1. School Facilities

Marin County has fifteen elementary school districts, two high school districts, and two unified school districts (K-12) (see Figure CF-18). The location of county schools are shown in Figures CF-2 through CF-15.

Enrollment appears to be increasing, particularly in the elementary schools. Several districts are considering reopening closed schools.

In 1986, school districts were given authority to collect development fees and use the fees for construction of permanent facilities (California Government Code Section 65970 et. seq.). Development fees supplement State funds and enable school districts to accommodate projected growth by building new facilities or expanding existing facilities. While these fees help mitigate the impact of new development, schools will continue to be largely dependent on State funding.

At present, the following school districts collect development fees: Kentfield, Larkspur, Mill Valley, Reed Union, Ross Valley, San Rafael Elementary, and Novato Unified. The County assists school districts in collecting these fees by requiring proof of development fee payment prior to County issuance of a building permit.

## 2. Childcare

There are nearly 32,000 families in Marin County with working mothers. Half of these working women need some form of childcare. The other half may share childcare responsibilities with spouses, work flexible hours or at home, or they may have some other arrangement which does not involve child care.

There are 8,202 children in licensed child care programs in Marin County and 6,593 licensed child care slots. Since many children are in part-time care, the number of children needing day care exceeds the number of slots. Supply exceeds demand by 744 vacancies in pre-school programs. Despite the number of vacancies, waiting lists may exist at individual facilities, especially those facilities which provide subsidies. The distribution of children in child care programs in Marin County is shown in Table CF-3.

**Table CF-3.**  
**Children in Licensed Child Care Programs in Marin County**

| Age of Child     | Family Day Care<br>Home | Child Care Center | Total for Age<br>Group |
|------------------|-------------------------|-------------------|------------------------|
| Under 2 years    | 408                     | 290               | 698                    |
| 2-5 years        | 851                     | 4,318             | 5,169                  |
| 6 years and over | 312                     | 2,023             | 2,335                  |
| Total in Program | 1,571                   | 6,631             | 8,202                  |

Source: "California Inventory of Child Care Facilities" issued by the California Child Care Resource and Referral Network, San Francisco, February 1987.

There are two types of child care programs, the child care center and the family day care home. The two programs have distinctly different uses, which is a major consideration in review of use permit applications and zoning designations. A child care center is a facility with more than twelve children. Residences generally do not qualify as a child care center. Child care centers are licensed by Community Care Licensing, State Department of Social Services, Santa Rosa Regional Office.

A family day care home provides care, protection and supervision for twelve or fewer children in the caregiver's own home. The primary caregiver must live in the home and be present at least 80% of the time. The Marin County Department of Social Services is under contract with the State Department of Social Services to license family day care homes.



State law makes a distinction between small family day care homes (less than six children) and large family day care homes of seven to twelve children. For the purpose of local ordinances and land use, use of a residence as a small family day care home is considered a residential use of property. Child care facilities with more than six children are allowed in all zoning categories with a conditional use permit.

### 3. Telecommunications

Telecommunication is the transmission of information from one point to one or more other points using radio frequency signals. The accommodation of the demand for telecommunication products and services has specific and critical implications for land use policy in Marin County.

The implications vary, depending on whether the telecommunication facilities are a major use on a property, such as a transmitter tower site, or a minor use accessory to a residential or commercial development, such as a satellite dish antenna for a single-family residence or microwave dish antenna mounted on a commercial building. Since many telecommunications facilities need to be located at high elevations in order to transmit and receive signals effectively, the location of telecommunications facilities may be within the ridge and upland greenbelt areas identified in the Countywide Plan.

Residents in the county may object to the placement of such facilities in visually prominent scenic areas, which are often in close proximity to major open space or recreational lands. However, the County must accommodate telecommunication facilities and mitigate the potential adverse impacts of telecommunication facilities through regulation, for the following two reasons:

Such facilities are necessary for the quality of life and economic well-being of people in Marin County. Telecommunication facilities provide necessary services, ranging from television to radio communication with emergency response vehicles; and

Federal regulations would not permit total prohibition nor unreasonable regulations that interfere with the provision of telecommunications services.

The Federal Government has primary regulatory power over telecommunications facilities through the Federal Communications Act. However, local regulations can prescribe land use and construction guidelines for telecommunications facilities. The Federal Communications Commission can preempt local regulations that prohibit or discriminate against building or expanding telecommunications facilities.



The State of California also regulates some telecommunications facilities which are considered public utilities. The California State Public Utilities Commission (CPUC) maintains that local jurisdictions cannot prohibit or restrict utilities such as cellular phone installations.

Due to the tremendous increase in demand for telecommunications products and services, Marin County has prepared the Telecommunication Facilities Policy Plan. This plan contains detailed information about telecommunications facilities and potential impacts and includes policies dealing with land use compatibility, mitigation of visual impacts, mitigation of non-ionizing electromagnetic radiation, public safety, and operational impacts. These policies are incorporated by reference in the Community Facilities Element of the Countywide Plan.

#### 4. Waste Management

##### a. Solid Waste Management

Garbage collection in the county is governed by 22 franchising agencies. They include ten of the eleven cities, eleven special districts, and the County. Each agency franchises with one of seven private haulers, with the exception of one special district that provides its own service.

Two permitted landfills operate in the county. They are Redwood Landfill north of Novato and the West Marin Landfill north of Point Reyes Station. Both are privately owned and operated. In 1990, about 256,000 tons of waste were disposed of at the two facilities. Most (97%) of the waste was disposed of at Redwood Landfill. Recent projections estimate that 3 million tons will be disposed of at these landfills over the next fifteen years, even with aggressive recycling and composting efforts.

In addition to disposing of solid waste, Redwood Landfill disposes of non-hazardous sewage sludge. In 1990, Redwood accepted 173,000 tons of wet sludge, dried it, and then disposed of the 59,000 dry tons in the landfill. About six percent of the sludge was from treatment plants in the county. The remainder was from treatment plants throughout the Bay Area.

The current solid waste facility permits for each landfill do not indicate their capacity or lifespan. Redwood Landfill has applied for permit revisions to make improvements to the landfill that would increase its capacity. It is anticipated that the improvements may provide disposal capacity well beyond the year 2000. Similarly, the West Marin Landfill is expected to have remaining capacity beyond the year 2000. Increased recycling and resource recovery activities throughout the county are expected to extend the lifespan of both landfills.

The curbside collection of separated recyclables is now available to most single-family residences, some multi-family complexes, and many commercial districts throughout the county. Most of the collected materials are processed at the Marin Recycling Center in San Rafael. Additional resource recovery services are also provided at the Marin Resource Recovery Facility in San Rafael. These facilities are also privately owned and operated.

The county's waste management system is further described in the draft Source Reduction and Recycling Element, an element of the County Integrated Waste Management Plan which is being prepared in accordance with the California Integrated Waste Management Act of 1989 ("AB 939"). The Element outlines a course of action for meeting the state's mandate of diverting 25% of the wastestream from disposal by 1995 and 50% by the year 2000. Diversion may include source reduction, recycling, composting, and limited transformation, such as wood incineration. In 1990, city-specific diversion rates ranged from 16% to 36%. Once approved by each city, the Element will become part of the County Integrated Waste Management Plan.

b. Household Hazardous Waste Management

The County has sponsored collection days for household hazardous waste for Marin County and its cities since 1986. In addition, several private facilities provide year-round drop-off areas for specific recyclable materials, such as motor oil, car batteries, and latex paint. Wastes collected at the collection days and drop-off facilities are recycled, treated, or disposed of at facilities outside the county. The County is working towards establishing a permanent program that will more effectively collect and recycle household hazardous waste throughout the county. The current program and plans for future programs are described in the draft Household Hazardous Waste Element, which, once approved by each city and the County, will also become part of the County Integrated Waste Management Plan.

#### IV. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

**Objective CF-1. Coordination.** To coordinate decisions between the County and cities on land use management and development in urban fringe areas.

**Policy CF-1.1**                      **Zoning within urban service areas.** In order to encourage annexation, the County's zoning of unincorporated lands in urban service areas should permit less intensive development than is permitted by the city, unless otherwise mutually agreed upon or specified in an adopted community plan.

**Program CF-1.1a**                Subdivision of unincorporated land. Subdivision of unincorporated land within the urban service area should be allowed at rural level zoning levels or by zoning specified in an adopted community plan, whichever density is greater.

**Policy CF-1.2**                      **Zoning outside urban service areas.** Outside urban service areas, the County zoning shall discourage development requiring urban levels of service, except when the surrounding area and/or the area itself is fully developed.

**Policy CF-1.3**                      **Development applications.** All development applications within a city's urban service area should be reviewed by the city to ensure consistency with its land use and development policies.

**Program CF-1.3a**                Subdivision and master development plans. Subdivision and master development plans involving unincorporated land within a city's urban service area shall be submitted to the city for planning action and annexation. This approach awards the "right of first review" to the affected city to perform the planning analysis of any development plan requiring urban services.

**Policy CF-1.4**                      **Development of unincorporated land.** Prior to development of vacant unincorporated lands within an urban service area, the unincorporated territory should seek annexation to the city, unless the city signifies that it does not desire to annex the lands at that time.



- Program CF-1.4a      Annexation. Within the urban service area, city annexation will accompany approval of the development plan, if the city agrees.
  
- Program CF-1.4b      City annexation programs. Cities should adopt resolutions establishing programs for annexation of unincorporated lands located within the affected city's urban service area.
  
- Program CF-1.4c      Development policies within cities. Cities should amend their general plans and implementing ordinances to insure that their development policies within the unincorporated portions of their urban service areas are known.
  
- Program CF-1.4d      Prezoning. Cities should prezone all land located within their designated urban service area (as allowed by Section 65859 of the California Government Code).

**Objective CF-2. Discouraging Sprawl. To encourage urban development to occur in cities and discourage sprawl (consistent with LAFCo policies).**

- Policy CF-2.1      Rural land.** The County will maintain the rural character of lands located in the Coastal Recreation and Inland Rural corridors.
  
- Policy CF-2.2      Review of the urban service area.** The urban service area should be reviewed every five years and revised to reflect changes in land demand and the availability of urban services.

**Objective CF-3. Efficient Provision of Services. To maximize the use of existing, available services before providing new or expanded services.**

- Policy CF-3.1      Extension of special assessment districts.** The County shall not consider extension of special assessment districts unless it is determined that the increased service will not exceed the need for services identified for planned levels of growth.
  
- Policy CF-3.2      Special districts.** A special district should only be created after it has been demonstrated that services cannot be better provided through the County, annexation to a city, or annexation to an existing special district.



**Policy CF-3.3**                      **Consolidated service areas.** In areas where it might be possible to combine governmental services, consolidated service areas should be defined.

Program CF-3.3a                Feasibility of consolidation. Studies should be undertaken which ascertain the feasibility and desirability of consolidating identified service areas.

**Policy CF-3.4**                      **Extension of service.** Utilities and treatment facilities serving developed areas and areas designated as developable in the Countywide Plan or in local plans should be improved, if necessary, before service is extended to new areas.

**Policy CF-3.5**                      **Technical assistance.** Local public agencies should improve the efficiency of operations through using available technical assistance programs in construction, operation and maintenance, and purchasing.

Program CF-3.5a                Energy management studies. The County should encourage governmental agencies (especially the Public Works Department), special districts, public utilities, and school districts to conduct energy management studies that evaluate immediate and long-term opportunities for energy savings and use of local renewable sources.

**Objective CF-4. Balancing Growth and Services.** To manage growth in a manner consistent with the ability of cities and districts to provide services.

**Policy CF-4.1**                      **Developed unincorporated land.** Developed unincorporated lands that benefit from or have the potential to benefit from city services after annexation should be included in a city's urban service area.

**Policy CF-4.2**                      **Annexation of developed unincorporated land.** All developed unincorporated lands inside a city's urban service area should annex to the city, if possible.

**Policy CF-4.3**                      **Vacant unincorporated land.** Vacant unincorporated lands that are contiguous to a city should be included in the urban service area, if the city is willing to provide and capable of providing services to the area.

**Policy CF-4.4**                      **Annexation of vacant undeveloped land.** Undeveloped lands outside the urban service area should not be considered for annexation.

**Policy CF-4.5**                      **Land unsuitable for development.** Areas that are not suitable for development because of natural hazards or resource value should not be included in an urban service area, unless they fall within a city limit.

**Policy CF-4.6**                      **Compensation for city services.** Cities should not be expected to serve unincorporated areas directly or indirectly without full compensation by the residents of the unincorporated areas, through appropriate financing or assessment districts (i.e. County Service Areas).

**Objective CF-5.    Public Facilities.** To plan for all types of public facilities (schools, transit, water, and sewer) in accordance with Countywide Plan policies and city policies.

**Policy CF-5.1**                      **Levels of service.** Public and private services should be designed to accommodate the level of development planned by the cities and the County.

**Policy CF-5.2**                      **Cost of facilities.** New development should pay the cost of the infrastructure it requires and the public services it receives.

Program CF-5.2a                      Fair share. Studies should determine the "fair share," or cost of providing public services and facilities to new development.

**Policy CF-5.3**                      **Minimize cost.** Public facilities should be designed to minimize both short-term and long-term construction, operation, and maintenance costs.

**Policy CF-5.4**                      **Wastewater reuse.** Wastewater should be recycled for reclamation and reuse when feasible.

**Policy CF-5.5**                      **Location of community facilities.** Community facilities such as libraries, social service offices, recreation centers, and other community facilities should be placed in locations that are served by public transportation, to the greatest extent possible.

**Policy CF-5.6**                      **Barrier-free design.** Community facilities should be designed or rehabilitated to remove barriers to disabled persons.

**Policy CF-5.7**                      **Energy criteria.** Energy efficiency and renewable energy use should be included as criteria for approving and designing capital improvements projects for all agencies and special districts.

**Objective CF-6.    Provision of child care.** To facilitate the provision of quality child care.

**Policy CF-6.1**                      **Establishment of facilities.** The County should encourage the establishment of child care facilities in suitable locations.

Program CF-6.1a                  Assess regulations. The County should undertake an assessment of current zoning regulations and definitions pertaining to child care. If necessary, the County should propose changes which would facilitate the provision of services.

**Objective CF-7.    Telecommunications Facilities.** To ensure that the siting and design of telecommunication facilities is compatible with other land uses, minimizes visual impacts, minimizes potential health risks, provides protection from vandalism and fire hazards, and minimizes impacts on adjacent uses.

Telecommunications policies in the Telecommunication Facilities Policy Plan adopted by the Board of Supervisors in 1990 are incorporated by reference into the Community Facilities Element of the Countywide Plan.

Figure CF-2. Sausalito Community Facilities

# Sausalito Community Facilities and Sphere of Influence

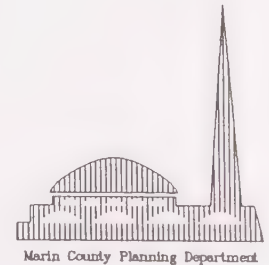
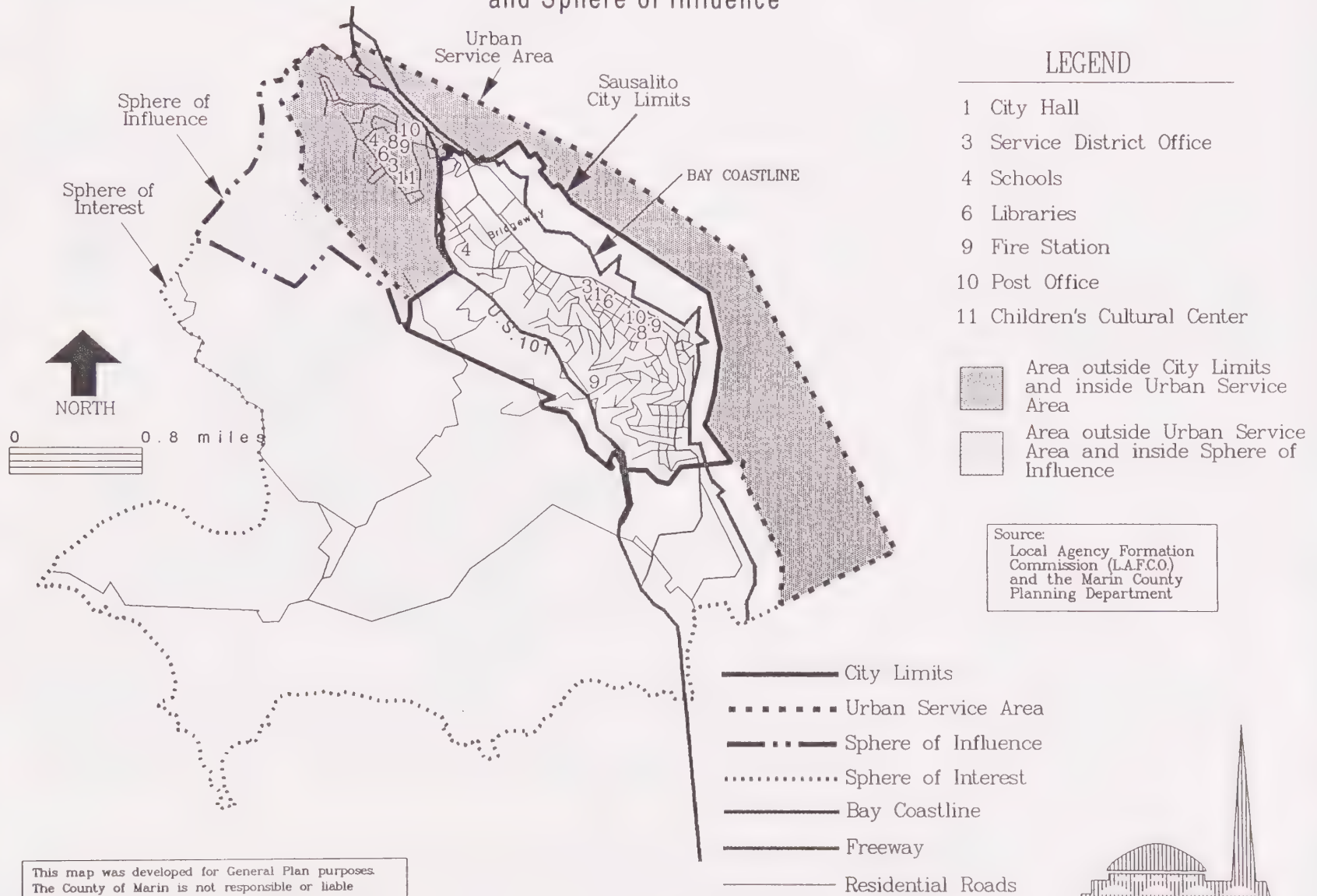
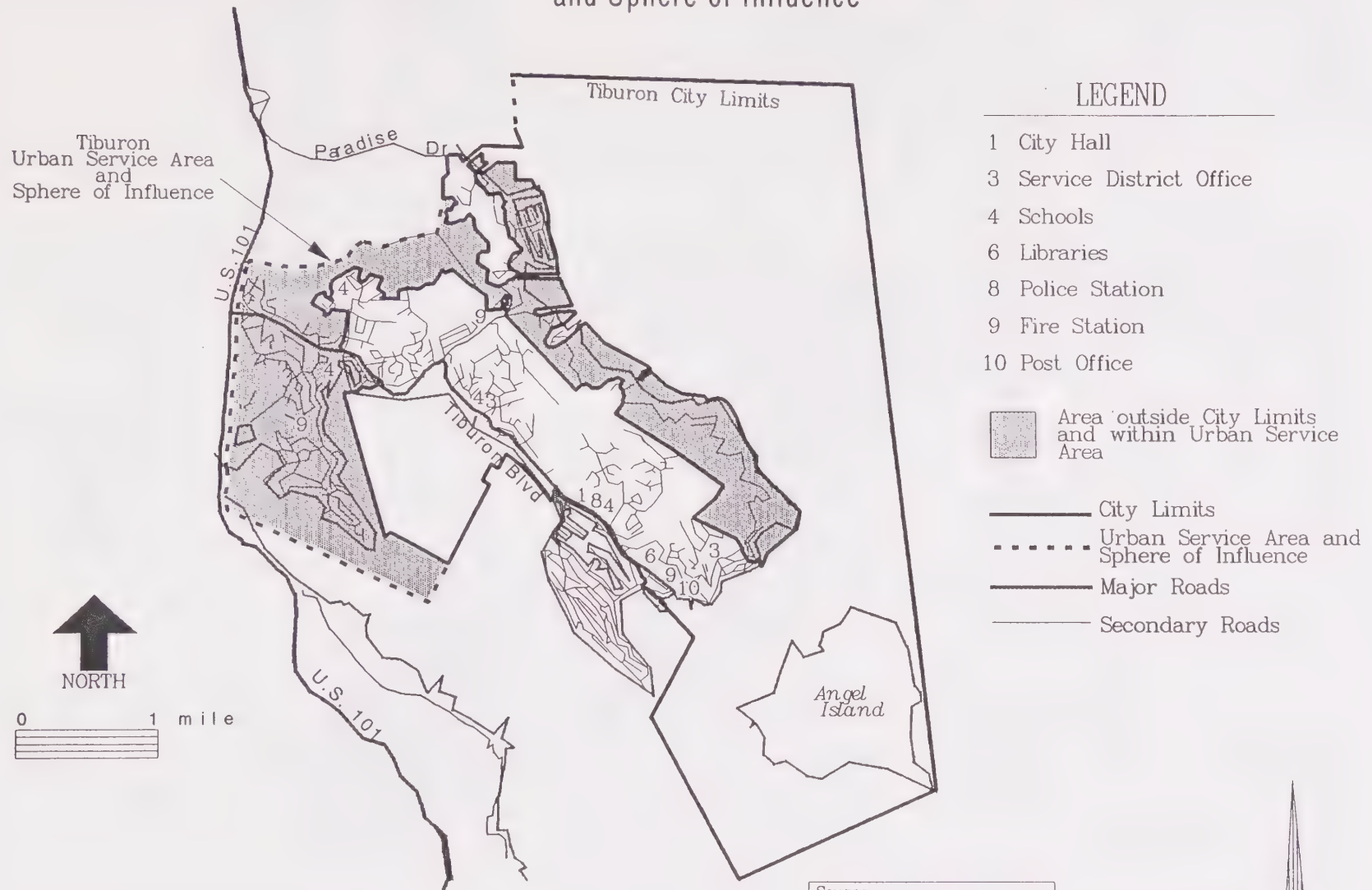




Figure CF-3. Tiburon Community Facilities

# Tiburon Community Facilities and Sphere of Influence



## LEGEND

- 1 City Hall
- 3 Service District Office
- 4 Schools
- 6 Libraries
- 8 Police Station
- 9 Fire Station
- 10 Post Office

- Area outside City Limits and within Urban Service Area
- City Limits
- Urban Service Area and Sphere of Influence
- Major Roads
- Secondary Roads

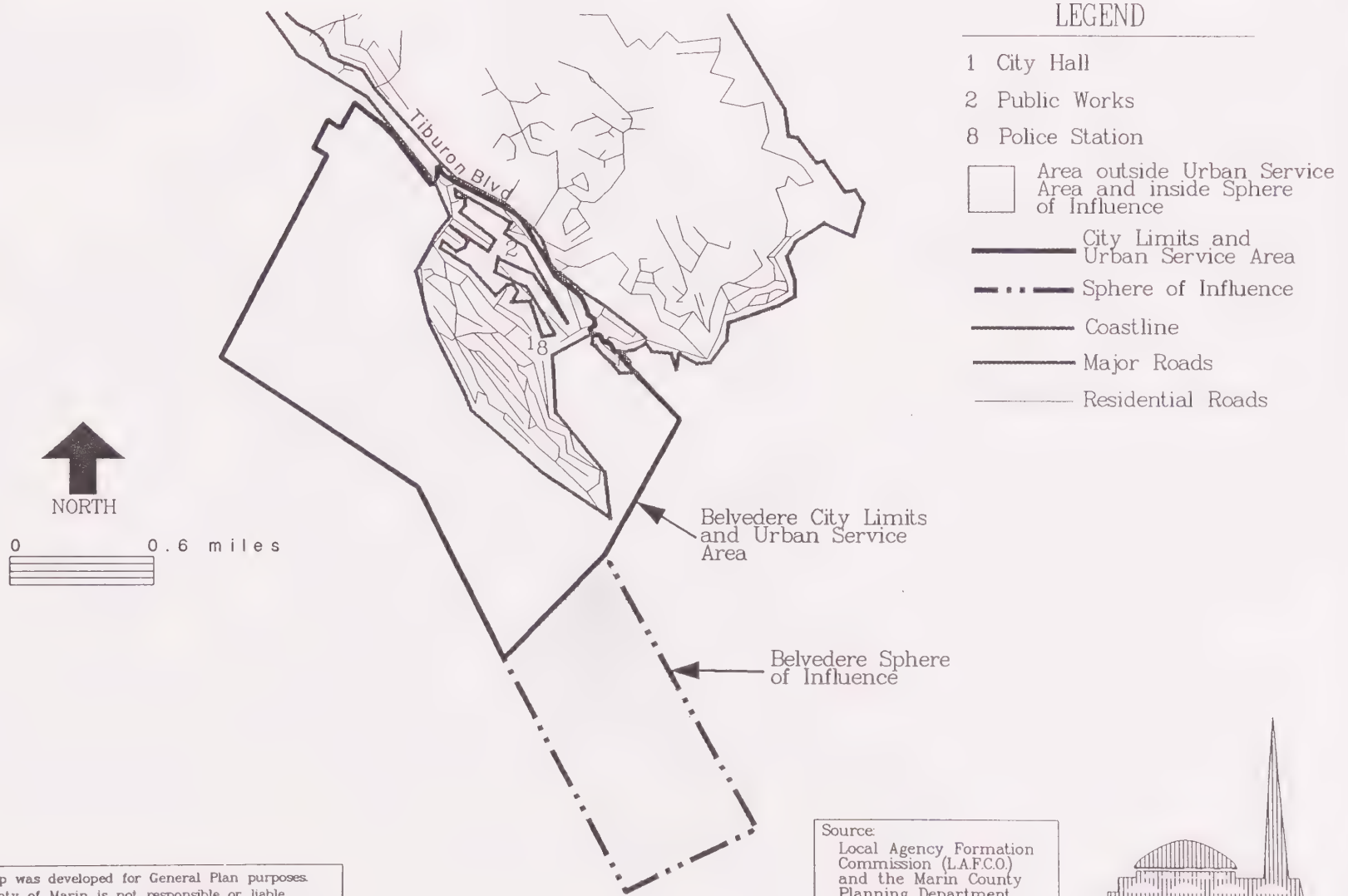
This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

Source:  
Local Agency Formation  
Commission (L.A.F.C.O.)  
and the Marin County  
Planning Department



Figure CF-4. Belvedere Community Facilities

# Belvedere Community Facilities and Sphere of Influence



This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

Source:  
Local Agency Formation  
Commission (LAFCO)  
and the Marin County  
Planning Department

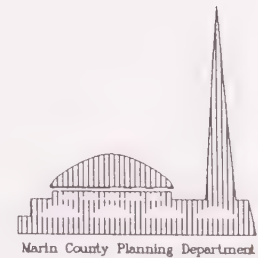


Figure CF-5. Mill Valley Community Facilities

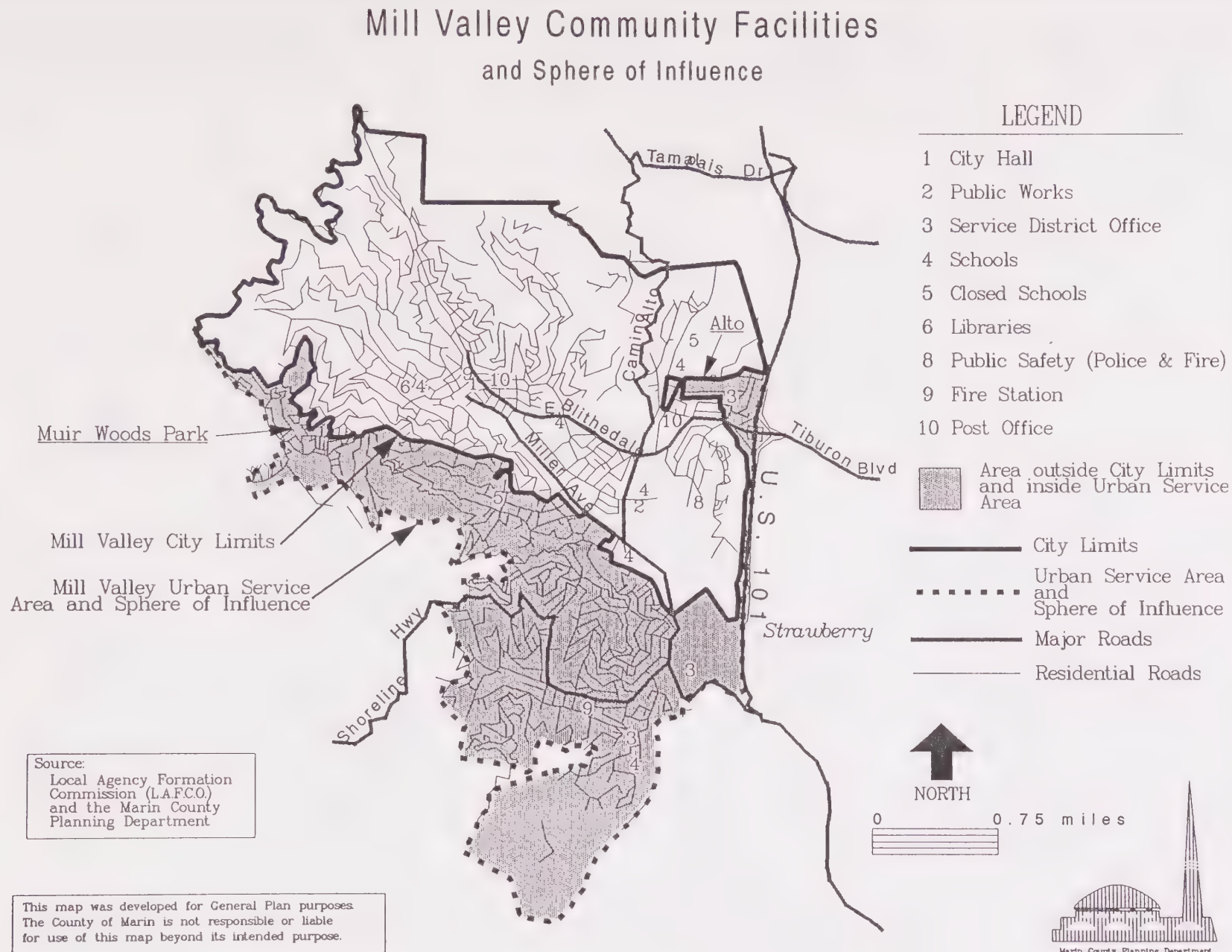


Figure CF-6. Corte Madera Community Facilities

# Corte Madera Community Facilities and Sphere of Influence

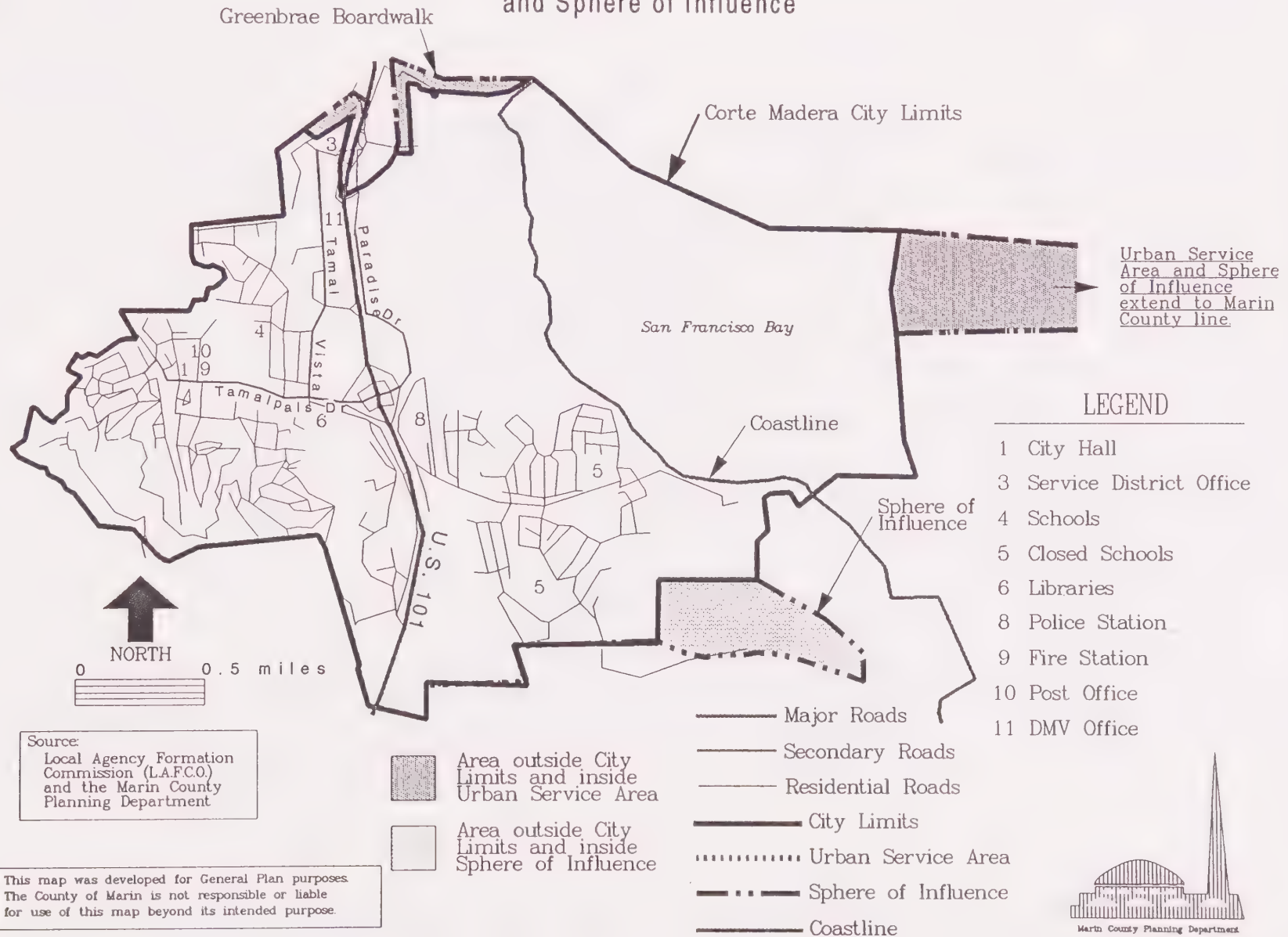




Figure CF-7. Larkspur Community Facilities

# Larkspur Community Facilities and Sphere of Influence

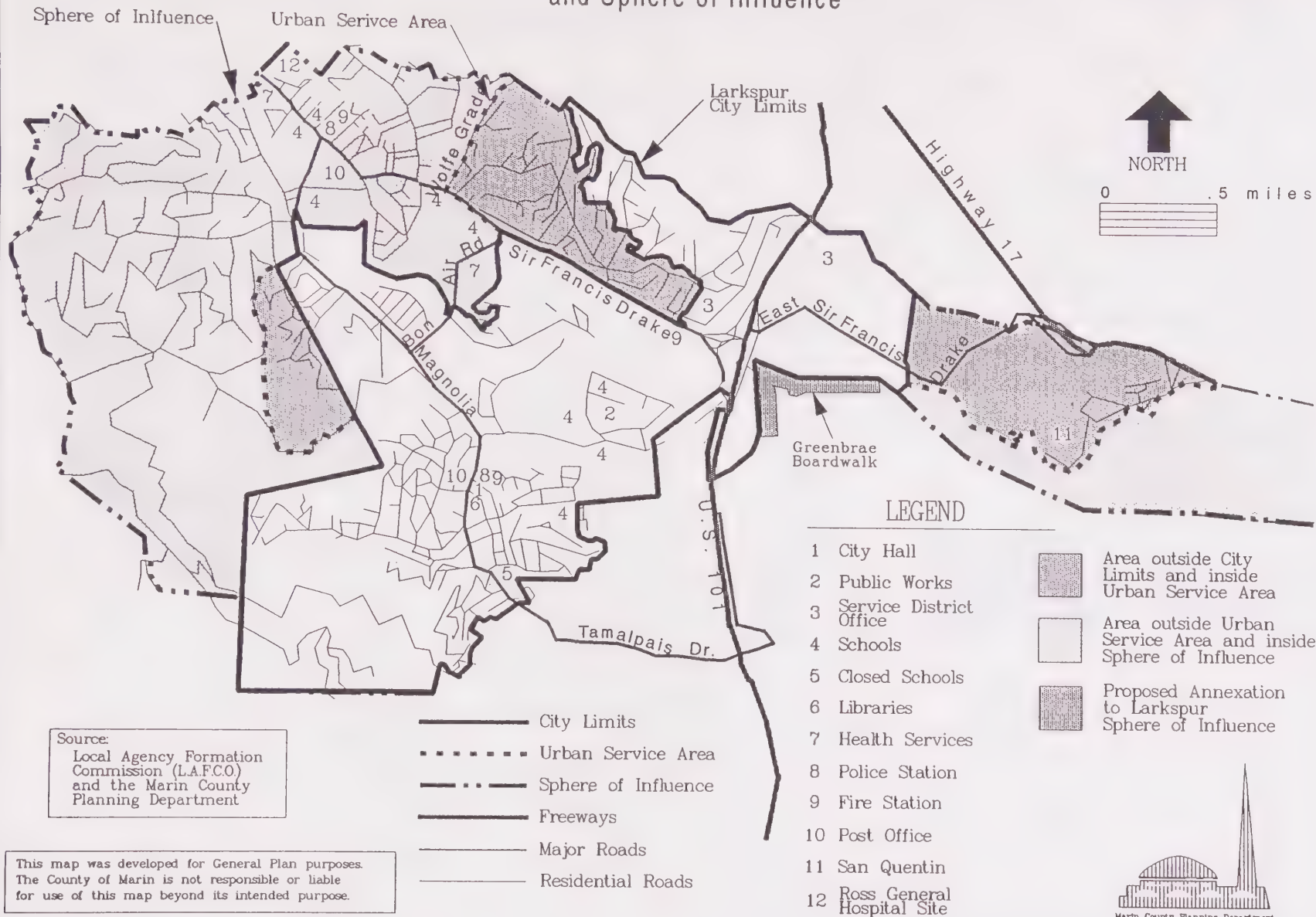











Figure CF-8. San Rafael Community Facilities

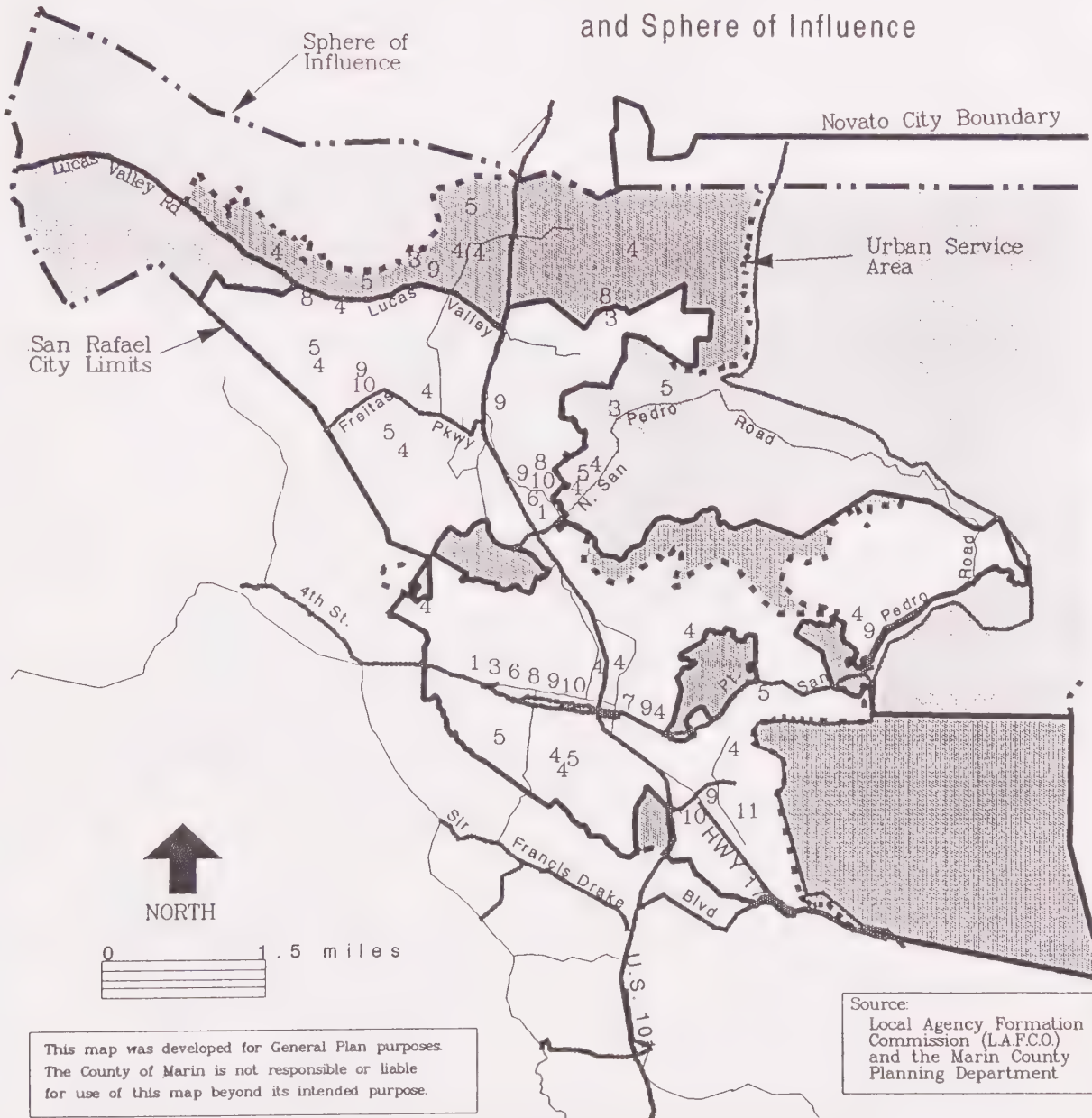
# San Rafael Community Facilities and Sphere of Influence

## LEGEND

- 1 City Hall / Civic Center
- 3 Service District Office
- 4 Schools
- 5 Closed Schools
- 6 Libraries
- 7 Health Services
- 8 Police Station
- 9 Fire Station
- 10 Post Office
- 11 Employment Development Department

-  Area within City Limits and outside Urban Service Area
-  Area outside City Limits and inside Urban Service Area
-  Area outside Urban Service Area and inside Sphere of Influence

-  City Limits
-  Urban Service Area
-  Sphere of Influence
-  Major Roads
-  Secondary Roads
-  Bay Coastline



NORTH

0 1.5 miles

This map was developed for General Plan purposes. The County of Marin is not responsible or liable for use of this map beyond its intended purpose.

Source:  
Local Agency Formation  
Commission (L.A.F.C.O.)  
and the Marin County  
Planning Department

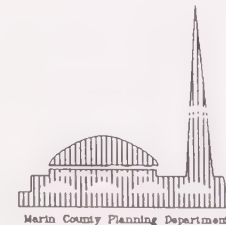


Figure CF-9. Ross Community Facilities

# Ross Community Facilities and Sphere of Influence



Source:  
Local Agency Formation  
Commission (LAFCO)  
and the Marin County  
Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

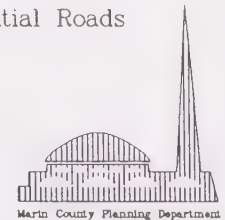
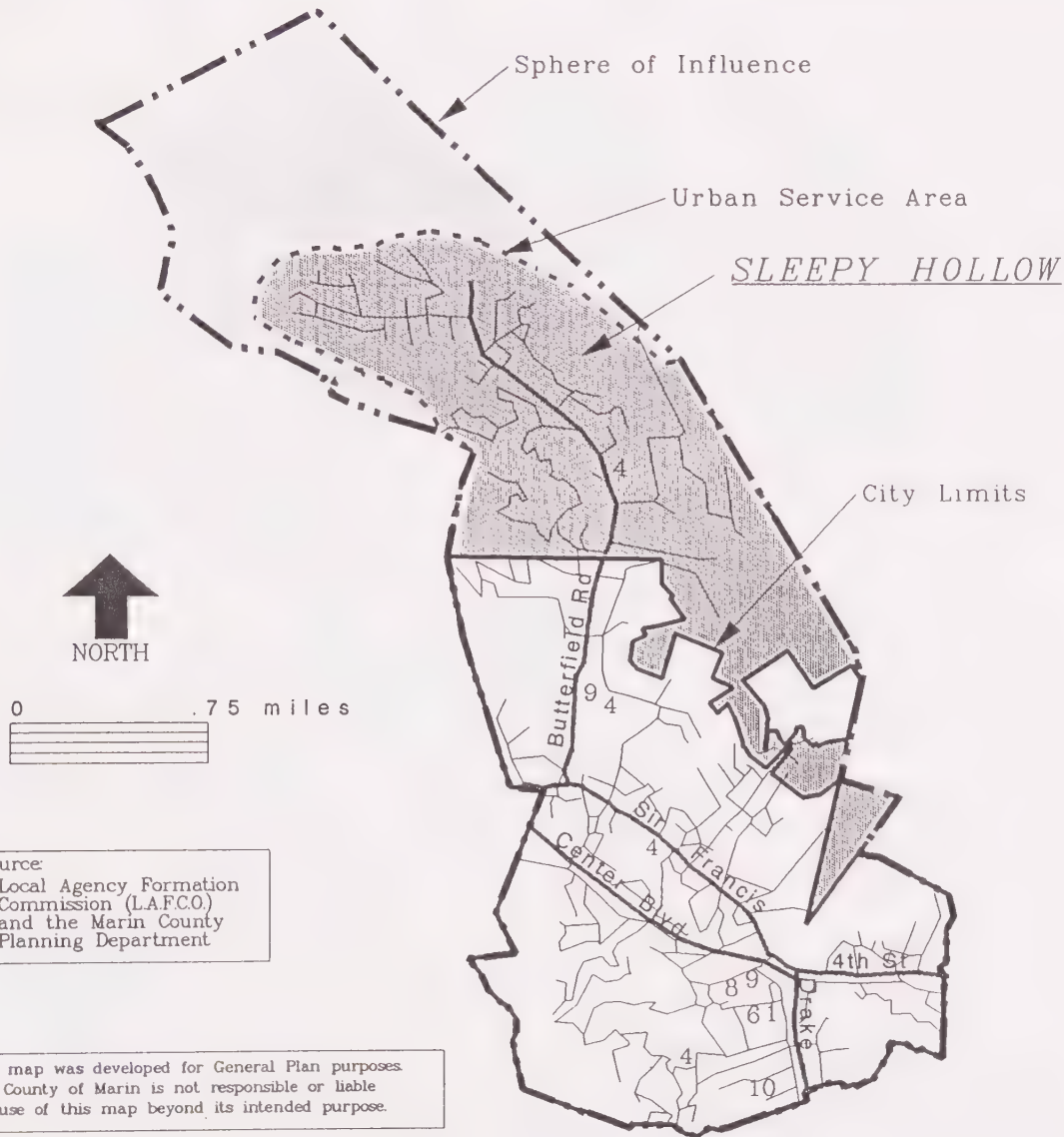











Figure CF-10. San Anselmo Community Facilities

# San Anselmo Community Facilities and Sphere of Influence



## LEGEND

- 1 City Hall
- 4 Schools
- 6 Libraries
- 8 Police Station
- 9 Fire Station
- 10 Post Office
-  Area outside City Limits and inside Urban Service Area
-  Area outside Urban Service Area and inside Sphere of Influence
-  City Limits
-  Urban Service Area
-  Sphere of Influence
-  Major Roads
-  Secondary Roads

Source:  
Local Agency Formation  
Commission (L.A.F.C.O.)  
and the Marin County  
Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

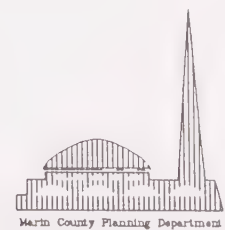
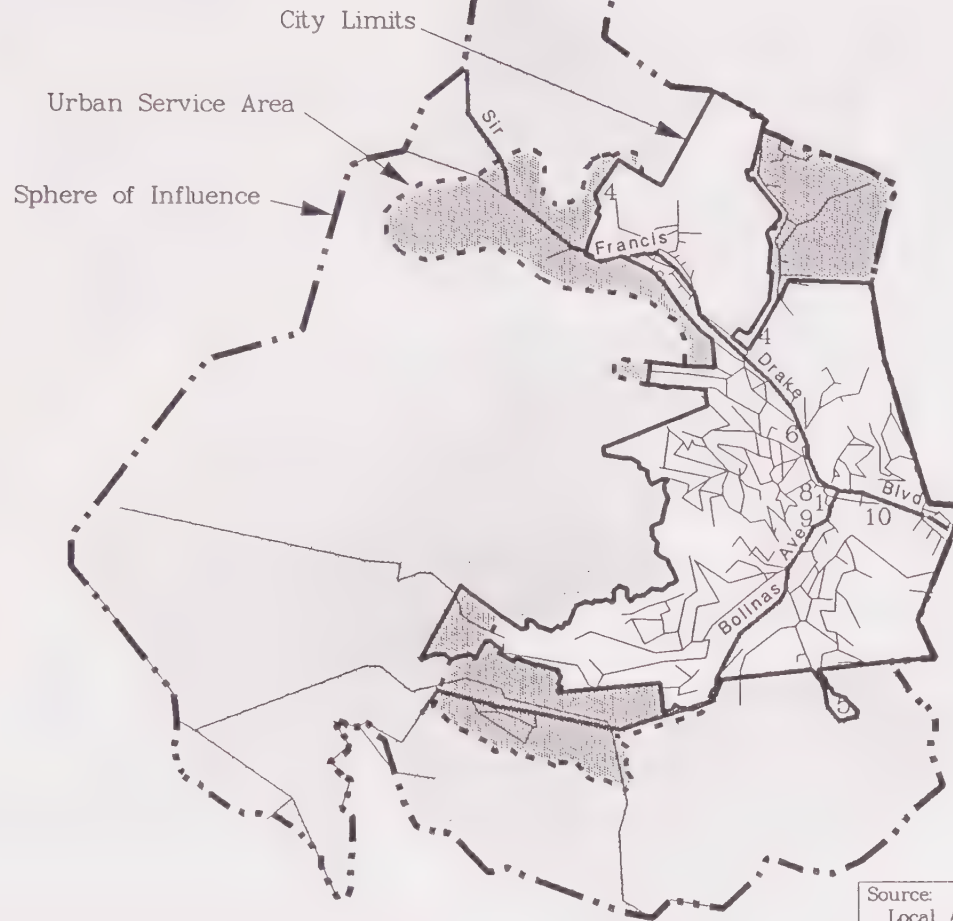
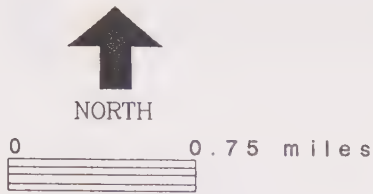




Figure CF-11. Fairfax Community Facilities

# Fairfax Community Facilities and Sphere of Influence



## LEGEND

- 1 City Hall
- 4 Schools
- 5 Closed Schools
- 6 Libraries
- 8 Police Station
- 9 Fire Station
- 10 Post Office

- Area within City Limits and outside Urban Service Area
- Area outside City Limits and inside Urban Service Area
- Area outside Urban Service Area and inside Sphere of Influence

- City Limits
- Urban Service Area
- Sphere of Influence
- Major Roads
- Residential Roads

Source:  
Local Agency Formation  
Commission (L.A.F.C.O.)  
and the Marin County  
Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

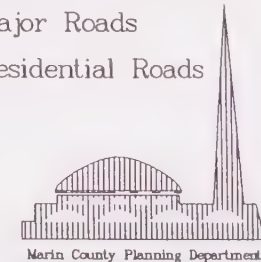








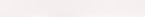

Figure CF-12. Novato Community Facilities

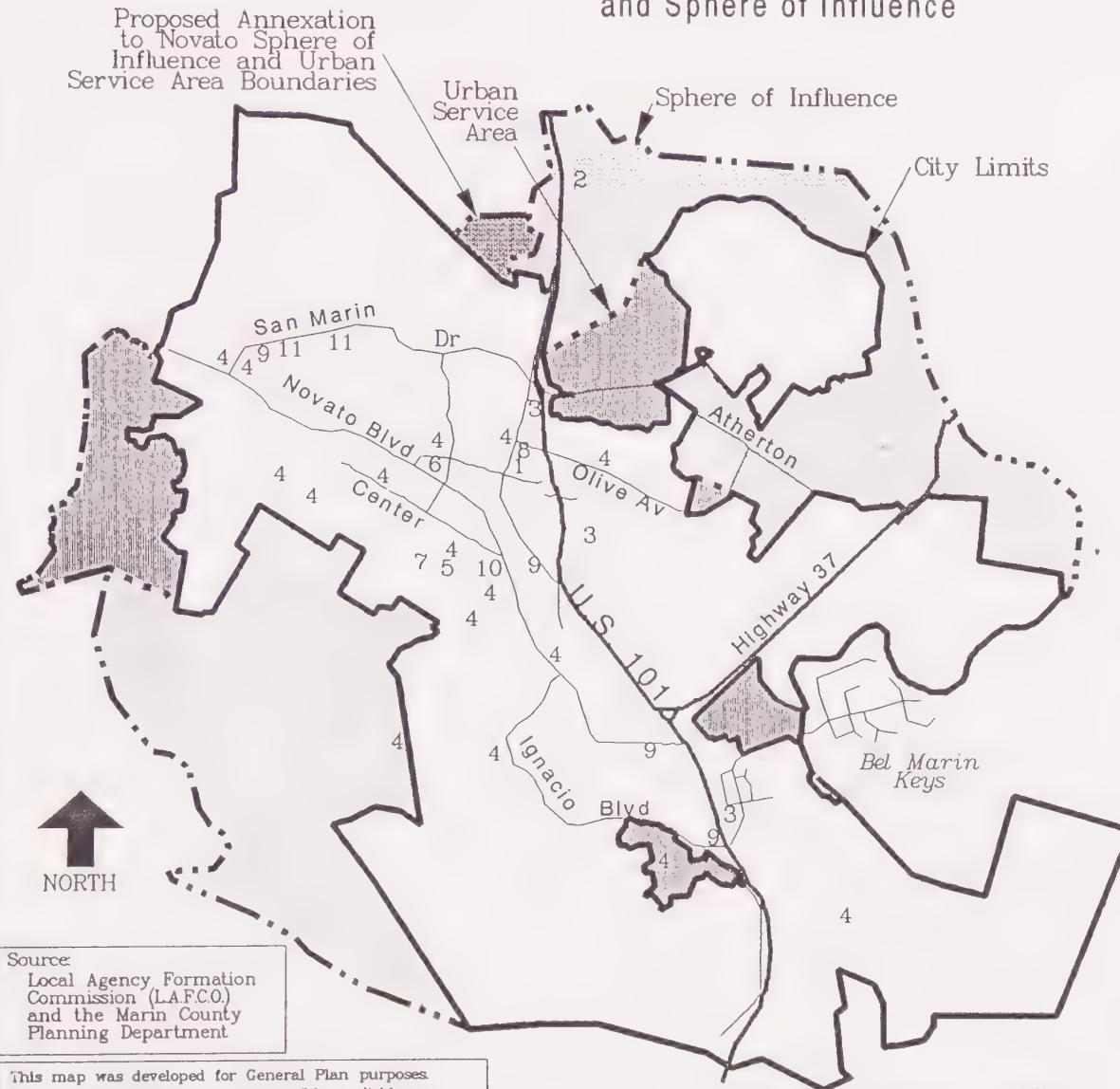
# Novato Community Facilities and Sphere of Influence

## LEGEND

- 1 City Hall
- 2 Public Works
- 3 Service District Office
- 4 Schools
- 5 Closed Schools
- 6 Libraries
- 7 Health Services
- 8 Police Station
- 9 Fire Station
- 10 Post Office
- 11 Other

-  Area outside City Limits and inside Urban Service Area
-  Area outside Urban Service Area and inside Sphere of Influence
-  Proposed Annexation to Urban Service Area and Sphere of Influence

-  City Limits
-  Urban Service Area Boundary
-  Sphere of Influence
-  Major Roads
-  Secondary Roads



Source:  
Local Agency Formation  
Commission (L.A.F.C.O.)  
and the Marin County  
Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

Figure CF-13. Inland Rural Corridor Community Facilities

# Inland Rural Corridor Community Facilities



## LEGEND

- 3 Service District Office
- 4 Schools
- 6 Libraries
- 9 Fire Station
- 10 Post Office
- 11 San Geronimo Water Treatment Facility

- Sphere of Influence
- Major Roads
- Secondary Roads

Source:  
Local Agency Formation  
Commission (LAFCO)  
and the Marin County  
Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

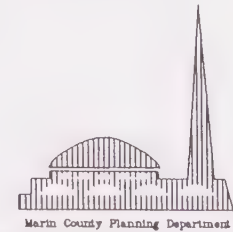
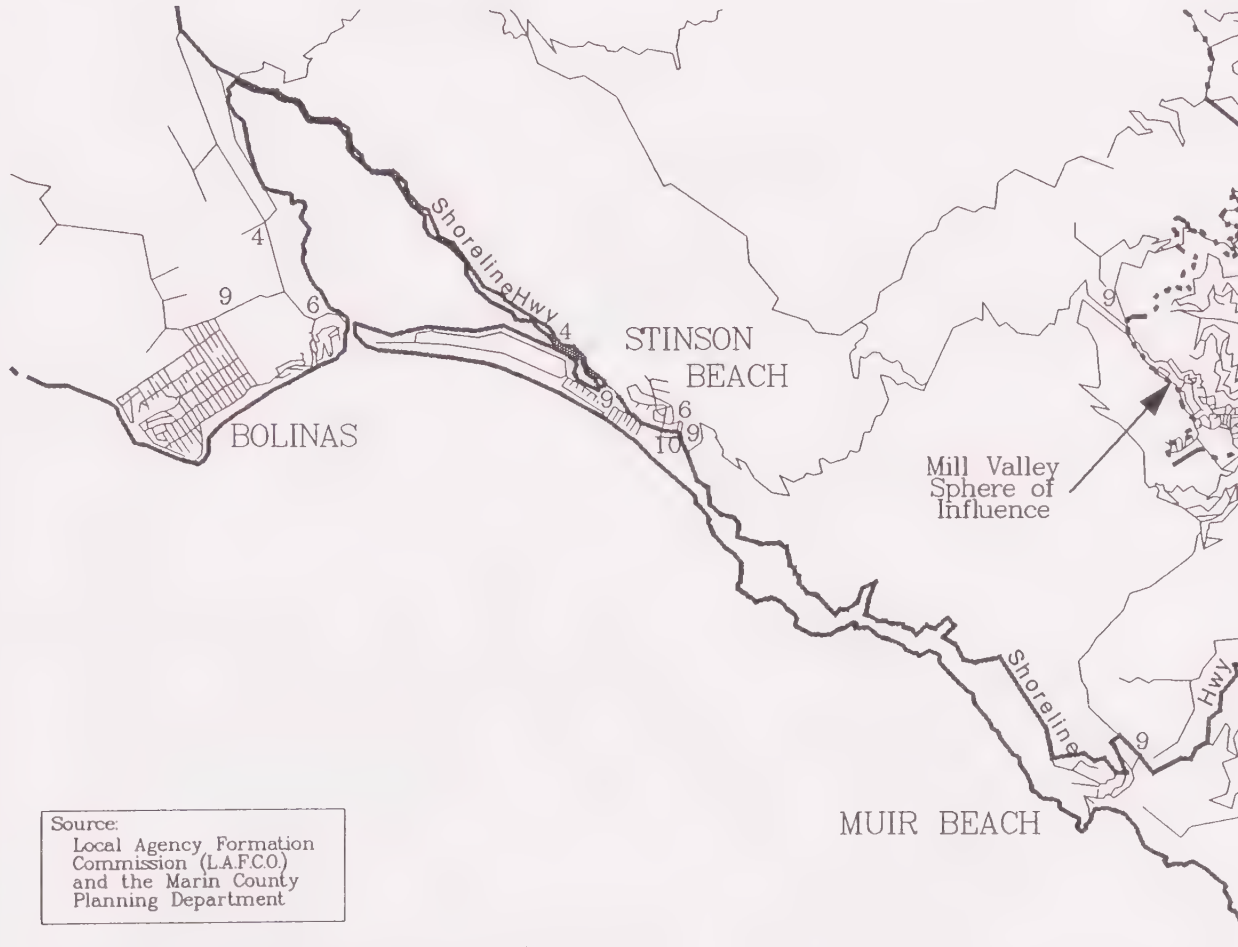


Figure CF-14. Coastal Community Facilities  
(Bolinas, Stinson Beach and Muir Beach)

# Coastal Community Facilities (Bolinas, Stinson Beach and Muir Beach)

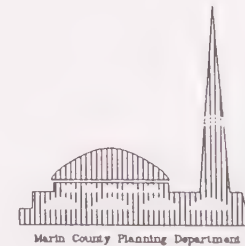


## LEGEND

- 4 Schools
- 6 Libraries
- 9 Fire Station
- 10 Post Office
- Major Roads
- Secondary Roads



0 1 mile



Source:  
Local Agency Formation  
Commission (LAFCO)  
and the Marin County  
Planning Department

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.



**Figure CF-15. Coastal Community Facilities**  
 (Tomales, Marshall, Inverness, Point Reyes Station, and Olema)

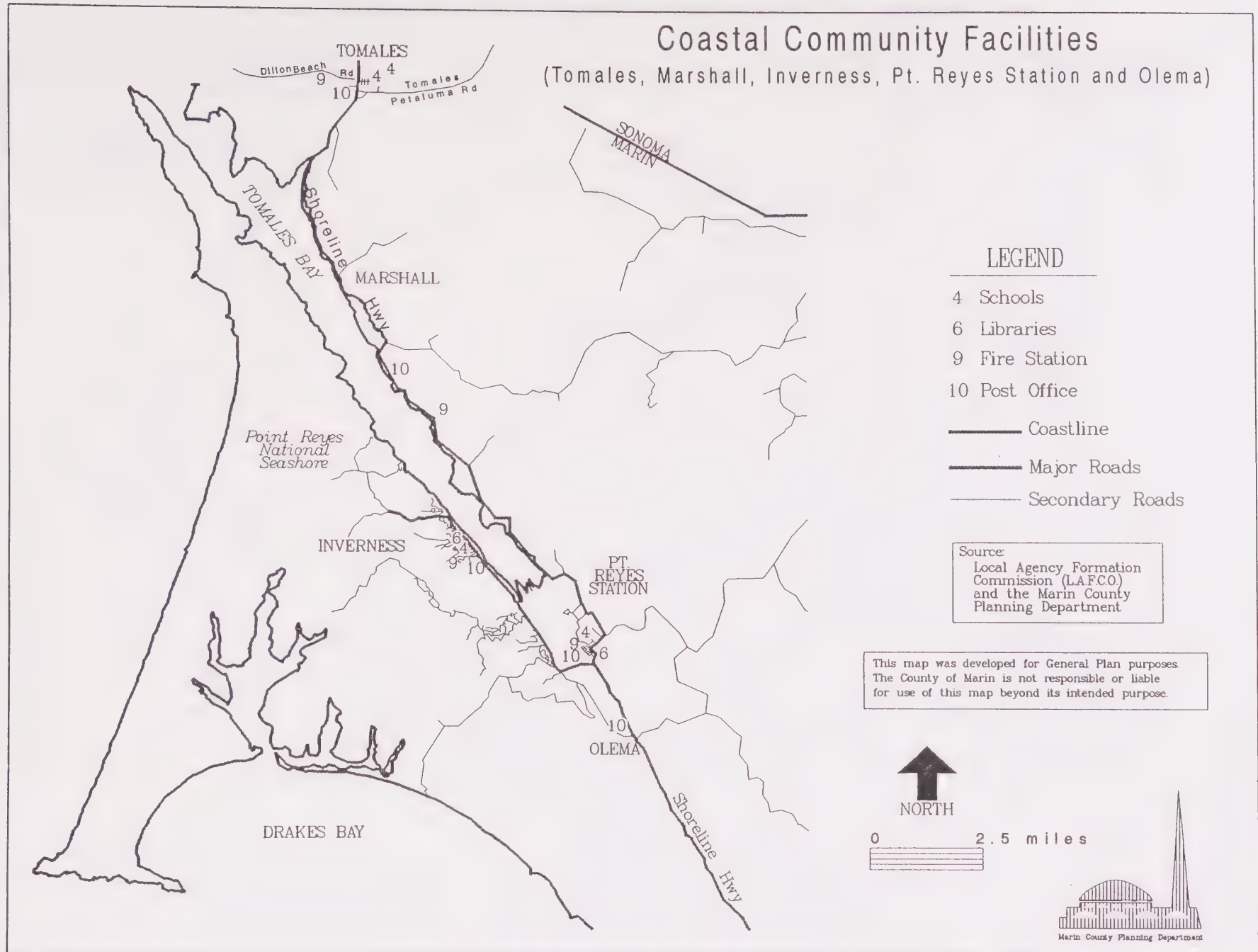
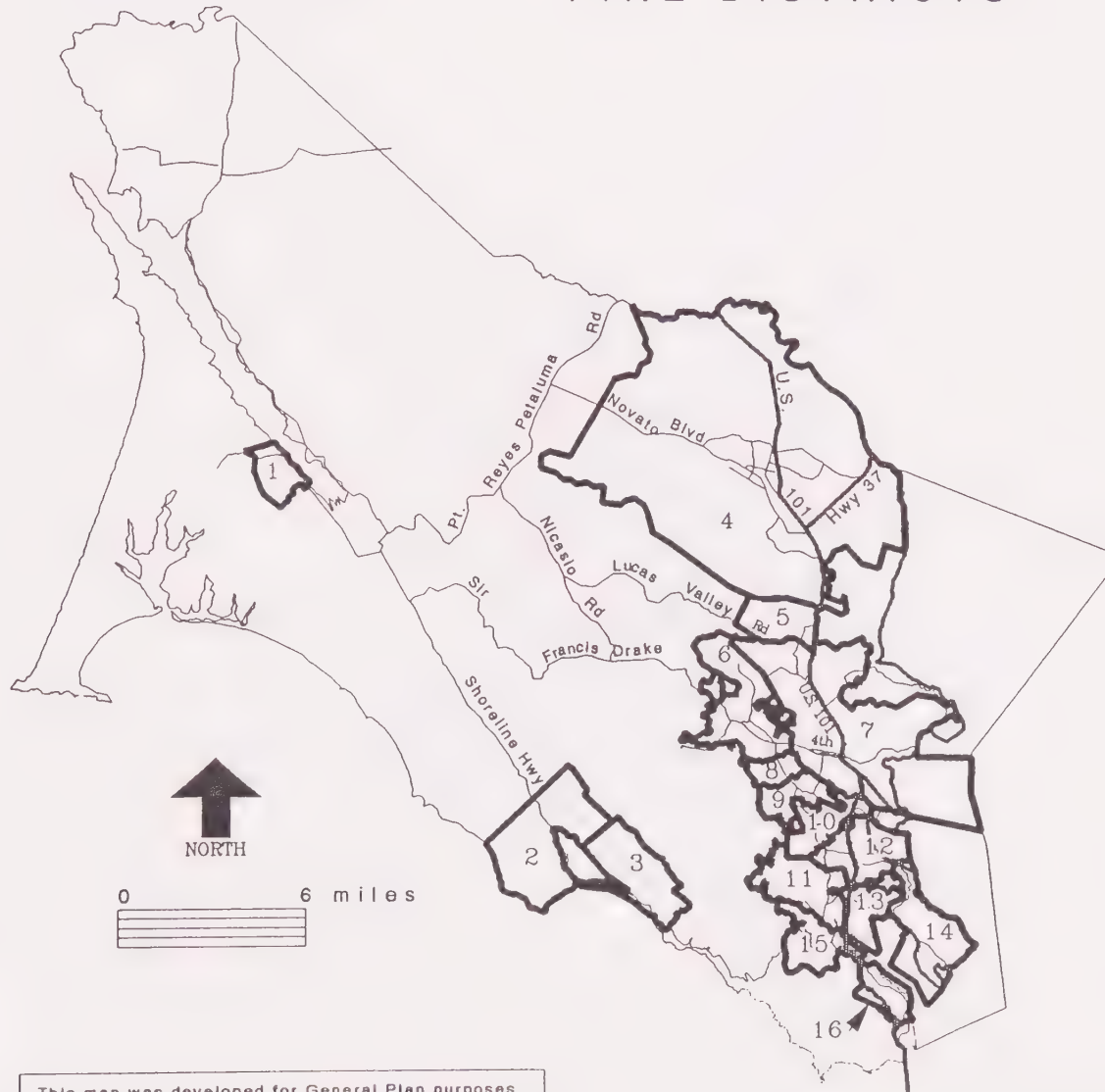


Figure CF-16. Marin County Fire Districts

# MARIN COUNTY FIRE DISTRICTS

## LEGEND

- 1 Inverness Public Utilities District
- 2 Bolinas Fire Protection District
- 3 Stinson Beach Fire Protection District
- 4 Novato Fire Protection District
- 5 Marinwood Community Services District
- 6 Ross Valley Fire Department
- 7 San Rafael Fire Department
- 8 Ross Fire Department
- 9 Kentfield Fire Protection District
- 10 Larkspur Fire Department
- 11 Mill Valley Fire Department
- 12 Corte Madera Fire Department
- 13 Alto-Richardson Bay Fire Protection District
- 14 Tiburon Fire Protection District
- 15 Tamalpais Fire Protection District
- 16 Sausalito Fire Department



This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

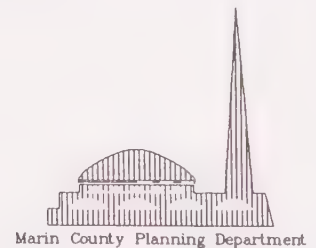
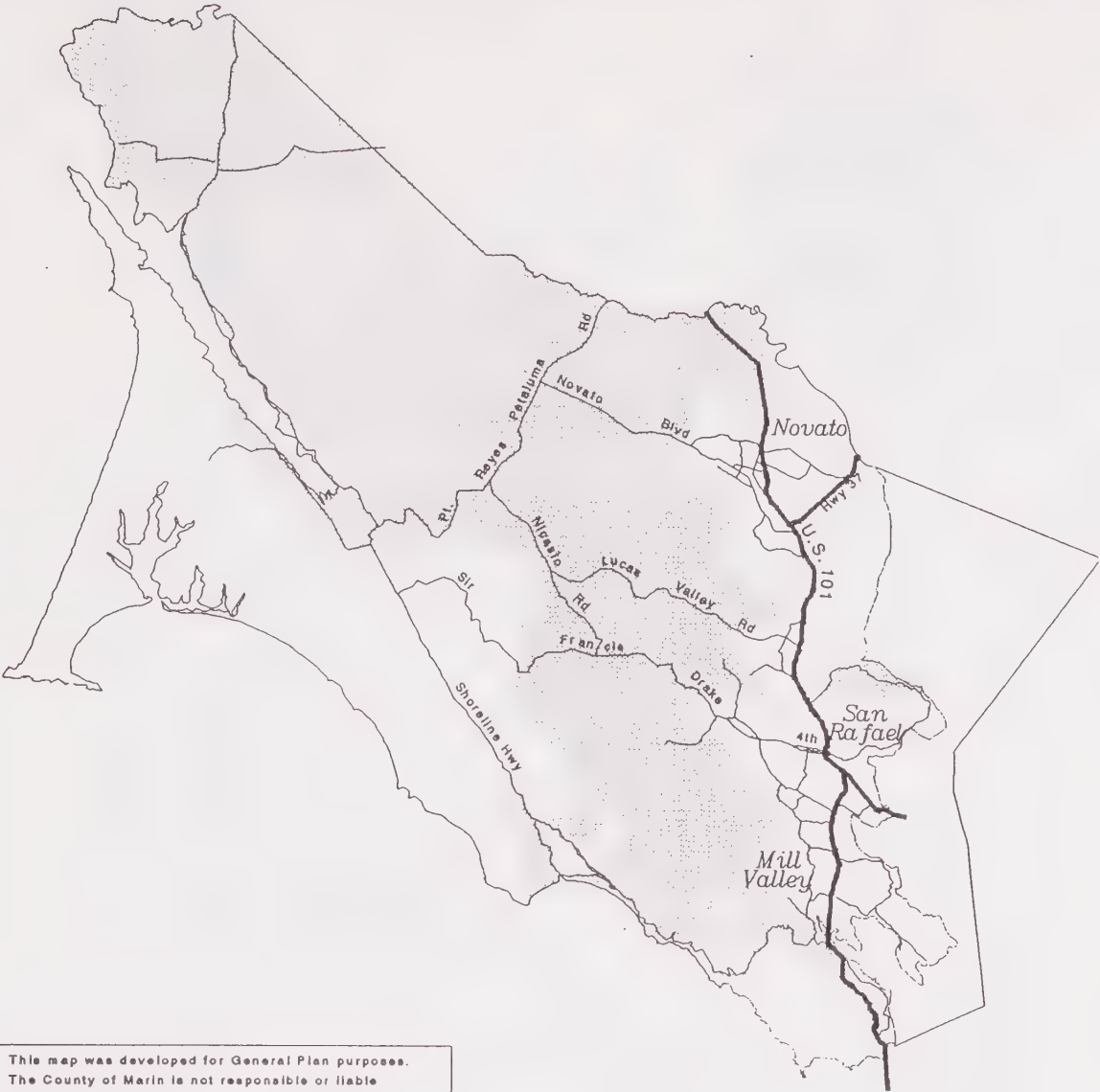


Figure CF-17. State Responsibility Areas

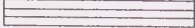
STATE RESPONSIBILITY AREAS (SRA)



 Lands in State Responsibility Area (SRA)



0 6 miles



This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.

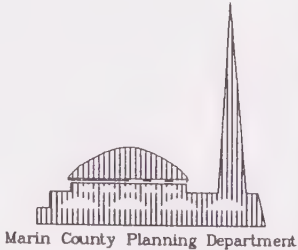







Figure CF-18. Marin County School Districts

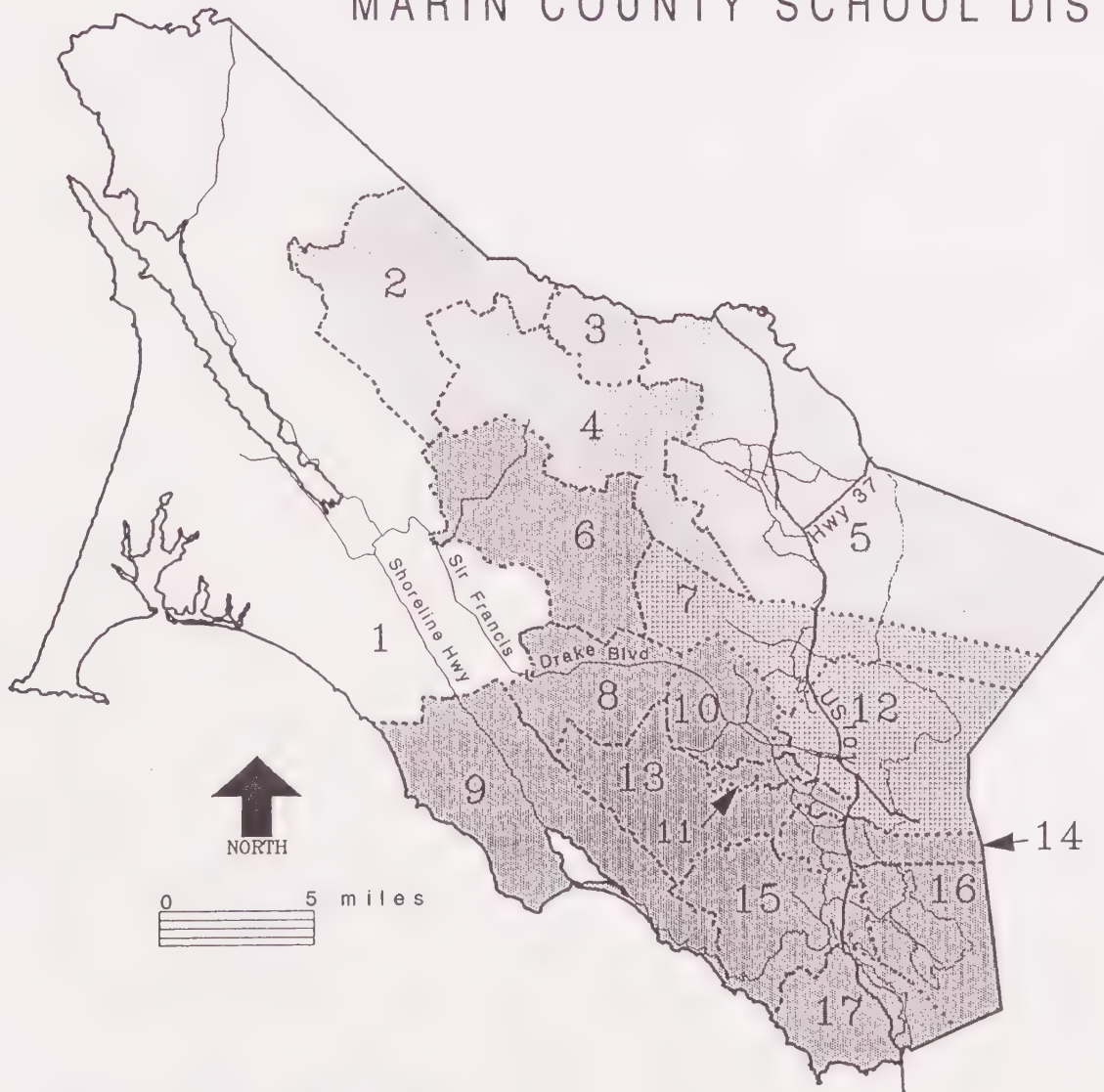
# MARIN COUNTY SCHOOL DISTRICTS

## High School Districts

-  Tamalpais Union High School District
-  San Rafael High School District
-  Marin County School Districts in the Petaluma High School District
-  Novato Unified School District
-  Shoreline Unified School District

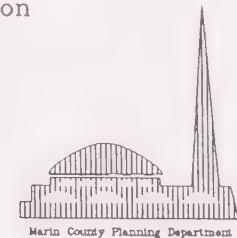
## Elementary School Districts

- |                         |                |
|-------------------------|----------------|
| 1 Shoreline             | 10 Ross Valley |
| 2 Laguna Joint          | 11 Ross        |
| 3 Union Joint           | 12 San Rafael  |
| 4 Lincoln               | 13 Kentfield   |
| 5 Novato                | 14 Larkspur    |
| 6 Nicasio               | 15 Mill Valley |
| 7 Dixie                 | 16 Reed Union  |
| 8 Lagunitas             | 17 Sausalito   |
| 9 Bolinas-Stinson Union |                |



0 5 miles

This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.







**PARKS AND RECREATION  
ELEMENT**



## PARKS AND RECREATION ELEMENT

### TABLE OF CONTENTS

|                                                                                                                                |    |
|--------------------------------------------------------------------------------------------------------------------------------|----|
| I. INTRODUCTION                                                                                                                | 1  |
| A. LEGAL AUTHORITY                                                                                                             | 2  |
| B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS                                                                                 | 2  |
| C. RELATIONSHIP TO OTHER PLANS, POLICIES AND PROGRAMS                                                                          | 2  |
| 1. The Open Space District                                                                                                     | 3  |
| 2. Unincorporated Communities                                                                                                  | 3  |
| 3. Local Parks and Recreation Planning                                                                                         | 3  |
| D. ORGANIZATION OF THE ELEMENT                                                                                                 | 4  |
| II. EXISTING CONDITIONS                                                                                                        | 4  |
| A. EXISTING PARK AND RECREATION FACILITIES                                                                                     | 4  |
| 1. Park Classification and Standards                                                                                           | 4  |
| 2. The Facilities Inventory                                                                                                    | 5  |
| B. PARK AND RECREATION NEEDS                                                                                                   | 22 |
| 1. The 1977 County Parks and Recreation Needs Survey                                                                           | 25 |
| 2. 1989 Survey of Parks and Recreation Directors                                                                               | 27 |
| 3. Special Needs and Groups in Each Planning Area Not Being Served by Either the Public or the Private Sector by Planning Area | 28 |
| III. PARK AND RECREATION ISSUES AND ALTERNATIVES                                                                               | 29 |
| A. COORDINATION AND INFORMATION                                                                                                | 30 |
| 1. Parks and Recreation Policy Coordination                                                                                    | 30 |
| 2. Development of Naylor and Quimby Act Criteria                                                                               | 31 |
| B. PARK AND RECREATION PROVISION BY THE COUNTY                                                                                 | 32 |
| C. OPTIONS FOR FUNDING ACQUISITION AND OPERATION OF FACILITIES                                                                 | 33 |
| 1. Public Acquisition of Parklands                                                                                             | 33 |
| 2. Less than Fee Acquisition of Parkland                                                                                       | 35 |
| 3. Development, Maintenance and Program Funding                                                                                | 36 |
| IV. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS                                                                          | 38 |



## LIST OF TABLES

|                                                                                               |    |
|-----------------------------------------------------------------------------------------------|----|
| PR-1. Park and Recreation Facility Size and Service Area Standards                            | 7  |
| PR-2. Status of Facilities Recommended in the 1965 Plan                                       | 9  |
| PR-3. Facilities Under County Ownership in 1965 and 1990                                      | 11 |
| PR-4. County Operated Park and Recreation Facilities, 1990                                    | 14 |
| PR-5. Park Acreage by Planning Area (excluding Schools) Compared<br>with Quimby Act Standards | 15 |
| PR-6. Local Park and School Acreage Compared with Quimby Act Standards                        | 19 |
| PR-7. Summary of Selected Recreational Facilities by Planning Area, 1990                      | 23 |
| PR-8. Recreation Facility Needs, 1990                                                         | 24 |

## LIST OF FIGURES

|                                       |    |
|---------------------------------------|----|
| PR-1. Public Parklands and Open Space | 12 |
|---------------------------------------|----|

## I. INTRODUCTION

The last parks and recreation plan, The Parks and Recreation Plan 1990 Outdoor Recreation Plan for Marin County, adopted in 1965, proposed formation of a regional park system by Marin County. This goal has been accomplished through a variety of means. Since 1965, Federal and State park acquisitions have contributed significant lands for public use. These parks serve the region and are also a destination for visitors to the region. In addition, the Marin County Open Space District was established by popular vote for the acquisition, operation, and maintenance of open space lands with operations funded through an ongoing property tax. Working in partnership with local agencies and a number of county service areas, the Open Space District has been able to acquire over 12,000 acres of land on ridges and hillsides. These lands provide open space and separators between communities in the urban corridor of the county. The partnership uses a variety of acquisition methods, including local and county service area bond issues.

Several cities in Marin County have prepared, or are updating, recreation elements. In addition, State, Federal, other County or subregional agencies, and private organizations have been active in the development of open space, park and recreation facilities in Marin. However, many recreation needs remain unmet and the criteria for prioritizing needs and the responsibilities for meeting them are not always clear. In addition, new needs are emerging as total recreation demand and specific interests continue to expand and evolve. The Countywide Plan, which contains policies regarding open space, coastal preservation, and protection of ridgelines and other valued open space resources, currently offers little guidance to the County and city park and recreation agencies regarding park acquisition and development or provision and operation of County, community and neighborhood recreation facilities and programs.

As a result of Proposition 13 tax cuts, and the ending or reduction of many public funding programs for parks and recreation, a recreation element provides an important guide to effective and creative application of available resources.

In the years ahead, the focus of the County's attention should be broadened to address the parks and recreation needs of the county's local communities and districts, and to assess the County's role in assisting these jurisdictions with the provision of local parks and recreation facilities.

## A. LEGAL AUTHORITY

The State of California does not mandate inclusion of a recreation element within a general plan. However, California planning law states that "the general plan may include any elements or address any...subjects which...relate to the physical development of the county or city" (Government Code Section 65303). The general plan guidelines prepared by the Office of Planning and Research state that "local governments may underscore their interest in public services and facilities by adopting an optional public facilities element."

The preparation of a parks and recreation element meets the requirements of the Quimby and Naylor Acts, two State laws that are important for maintaining Marin's ability to add to its parkland inventory. The Quimby Act, Section 66477 of the Government Code, permits a local jurisdiction to require the dedication of land for neighborhood and community recreation purposes and/or payment of the appropriate in lieu fee as a condition of approval of a tentative map or parcel map. To implement this law, a jurisdiction must include Quimby Act requirements in an ordinance that provides definite standards for determining the amount of land to be dedicated or the fee to be paid. Application of these standards requires United States Census population data and an accurate inventory of park acreage. A recreation element is also a prerequisite for the acquisition of surplus school properties for recreation purposes, in accordance with the Naylor Act, Section 39397.5 of the Education Code.

## B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Parks and Recreation Element is related to other elements in the following manner:

*Community Development:* Designates land uses.

*Environmental Quality Element:* Contains general policies on parks and recreation and priorities for acquisition of open space lands.

*Trails Element:* Contains general policies on parks and recreation.

## C. RELATIONSHIP TO OTHER PLANS, POLICIES, AND PROGRAMS

The current Parks and Recreation Element is based on the following general plan documents:

Parks and Recreation Technical Report #1, Facilities and School Sites Inventories, and Recommendations of Needs Surveys



The Parks and Recreation Plan 1990 Outdoor Recreation Plan for Marin County (1965)

This element coordinates with the following jurisdictions and plans:

1. The Open Space District

The Open Space District adopted standards from the Environmental Quality Element, which it uses to establish priorities for acquiring land in the City-Centered Corridor. The District states its role as providing "the financial means and leadership needed to identify and secure critical open space areas throughout Marin County." Critical open space areas are defined as areas of natural and, essentially undeveloped land such as:

Ridges, hillsides and canyons;  
Streams, natural shorelines and marshes;  
Scenic buffer areas; and  
Agricultural areas.

2. Unincorporated Communities

Special districts serve the park and recreation needs of unincorporated communities. In some cases, Marin County provides services to County Service Areas (CSAs), unincorporated areas paying special tax assessments to the County. Elsewhere, parks, recreation facilities and programs are provided and staffed by Community Service Districts (CSDs). These may be multi-purpose, such as the Tamalpais CSD or the Marinwood CSD, or single purpose, such as Strawberry Recreation and Park District.

3. Local Parks and Recreation Planning

The plans of several cities contain recreation elements. As stated in the City of Novato's Recreation Element, the elements should provide "an effective planning tool to maintain or improve the present level of service and to enhance an already successful park and recreation system." The "level of service" approach to park and recreation facility planning enables a city to identify changing patterns of need and use over a specified period of time.

The policies in the Local Coastal Plans (LCPs) are primarily designed to serve visitors to the coast. The plans recommend achieving needed access through vertical (perpendicular) easements to beaches and lateral (parallel) bluff-top and shoreline easements for low-intensity recreational activities, such as strolling, sunbathing, birdwatching, picnicking, fishing, and general viewing.



## D. ORGANIZATION OF THE ELEMENT

The Parks and Recreation Element of the Marin Countywide Plan identifies parks and recreation needs countywide, establishes standards for parkland acreage, and provides policies to guide the County in making decisions for the provision of needed park and recreation facilities.

The needs of local residents for parks and recreation facilities are covered in the various community plans for the coastal corridor, rather than in the LCPs.

## II. EXISTING CONDITIONS

### A. EXISTING PARK AND RECREATION FACILITIES

The description and analysis of existing parks and recreation facilities in Marin is complicated by a number of factors, including: the multiplicity of agencies providing parks and recreation; the presence of extensive Federal, State, and regional parks and open space; the wide range of size, function and level of development that exists among County and local parks; and the effect of unique jurisdictional and topographic conditions on the level of service provided within each incorporated and unincorporated community.

#### 1. Park Classification and Standards

Where possible, the following discussion is arranged according to the classification described below and summarized in Table PR-1. The standards quoted are taken from Planning and Design Criteria (de Chiara and Koppelman, 1982) and are generally based on standards published by the National Parks and Recreation Association. These are thought to be the most appropriate of the standards commonly used.

*County and regional parks:* Serving a population of 30,000 and usually incorporating natural areas, trails, water features, picnic areas, and recreation facilities;

*Community parks:* Ideally serving a population of 10,000 to 30,000 within a 3-mile radius. Usually containing specialized facilities such as swimming pools, tennis courts, community centers and sports field complexes;

*Neighborhood parks:* Ideally serving one or more neighborhoods with a population of 2,000 - 5,000 and within a radius of 1/2 mile and with a minimum size range between 5 and 20 acres; and

*Mini-parks and tot-lots:* Very small parks, play spaces and sitting areas serving neighborhoods and individual developments.

Mini-parks, neighborhood, and community parks may be provided by cities, community service districts or homeowners' associations, while community parks are usually provided by the cities or by the County. A typical standard for total acreage in these parks averages approximately three acres per thousand persons. The park and recreation system is also augmented by school parks, which may provide hard surface courts, sports fields, and recreation/meeting rooms, and by private facilities.

## 2. The Facilities Inventory

The first Marin County Parks and Recreation Facilities Inventory was prepared in 1977 by the County Parks and Recreation Planning Departments, with the assistance of volunteers and local Parks and Recreation officials. Existing public parks and recreation facilities and many private facilities were identified by type, size and ownership and were recorded and mapped for six planning areas: Novato, Las Gallinas/San Rafael, Upper Ross Valley, Lower Ross Valley, the Richardson Bay Communities, and West Marin. A summary of the information contained in the inventory by planning area may be found in the Parks and Recreation Technical Report #1.

The inventory was updated in 1985 and 1990 to reflect changes since 1977. The inventory was also computerized to ease maintenance and reorganized according to the County's three standard geographic divisions: the City-Centered Corridor with its six planning areas, the Inland Rural Corridor, and Coastal Corridor. With these improvements, a thorough and well-organized inventory should have continuing value in the following respects:

as a source of public information which is easy to update;

as a planning tool to assist County and local agencies in analyzing the supply of parks and recreation facilities in the County and each planning area relative to appropriate standards and thus to assist in setting planning, acquisition, and development priorities.

Because open space does not serve the County's needs for many types of active recreation outlets, lands in the open space category are not included in the inventory. These lands will be discussed in the Parks and Recreation Element only as their presence affects the policy choices available to the County and other local park and recreation providers.

a. Major Parks and Open Space Areas

The total acreage in recreation and open space use in Marin more than quadrupled between 1965 and 1990. This increase is due almost entirely to acquisitions by the Federal and State governments and by the Marin Open Space District. The District's aim has been to preserve lands which are of unique importance to county residents, but which are outside the boundaries of State and Federally-protected properties.

Together, the Golden Gate National Recreation Area, Point Reyes National Seashore, State parks, Marin Municipal and North Marin County Water District watershed lands, and Open Space District lands total approximately 150,000 acres. These lands include many of the parks and facilities proposed in the 1965 Parks and Recreation Plan (see Tables PR-2 and PR-3).

The contiguous Federal and State parklands comprised of the Golden Gate National Recreation Area (GGNRA), the Point Reyes National Seashore, Mount Tamalpais State Park, Samuel P. Taylor State Park, Tomales Bay State Park, Inverness Ridge State Park, provide the most extensive area of recreational open space in Marin. The GGNRA and the Point Reyes National Seashore were both established in 1972 to protect a dwindling legacy of undeveloped land from further urbanization. The boundaries of the GGNRA and the National Seashore have been expanded from time to time since 1972.

Within the boundaries of both the GGNRA and the National Seashore are non-Federally owned public and private lands. Included within the boundaries of the GGNRA are Angel Island and Mount Tamalpais State Park, which offer natural open space and hiking, and Samuel P. Taylor State Park which provides developed overnight vehicle camping spaces on a reservation basis. Although these parks are included within the GGNRA, the State of California has not turned these lands over to the Federal government and they are managed by the State Park Department in cooperation with the National Park Service. Tomales Bay State Park provides sheltered beaches for sunning, swimming, and clamming. The Inverness Ridge State Park is as yet undeveloped.

**Table PR-1. Park and Recreation Facility Size  
and Service Area Standards**

|                     | Service Area<br>Population |         | Acres/1,000<br>Persons | Acres/Facility |         |
|---------------------|----------------------------|---------|------------------------|----------------|---------|
|                     | Minimum                    | Maximum | Minimum                | Minimum        | Maximum |
| <b>Parks</b>        |                            |         |                        |                |         |
| Regional/County     | 50,000                     | 100,000 | 20.0                   | 250            |         |
| Community           | 10,000                     | 50,000  | 2.5                    | 20             | 100     |
| Neighborhood        | 2,000                      | 10,000  | 2.5                    | 5              | 20      |
| Mini-Parks          |                            | 500     | 2,500.0                |                |         |
| <b>School Parks</b> |                            |         |                        |                |         |
| Elementary          | 8,000                      |         | 2.5                    | 20             |         |
| Junior High         | 20,000                     | 30,000  |                        | 35             |         |
| High                | local need                 |         |                        | 50             |         |
| <b>Facilities</b>   |                            |         |                        |                |         |
| Softball Diamonds   | 3,000                      |         |                        |                |         |
| Baseball Diamonds   | 6,000                      |         |                        |                |         |
| Basketball Courts   | 500                        |         |                        |                |         |
| Tennis Courts       | 2,000                      |         |                        |                |         |
| Recreation Center   | 25,000                     |         |                        |                |         |
| Cultural Center     | None                       |         |                        |                |         |
| Swimming Pool       | 10,000                     |         | 450 ft <sup>2</sup>    |                |         |
| Golf Course         | 25,000                     |         |                        |                |         |

Source: Urban Planning and Design Standards, De Chiara and Koppelman, 1982.



The 20,000 acres of watershed lands owned by the Marin Municipal Water District are open to the public for hiking, horseback riding, bicycling, and fishing in seven lakes. The North Marin County Water District's watershed lands are not open to the public.

In general, the acreage in this category offers natural open space of extraordinary quality for passive and non-intensive active recreation. A majority of the recommended recreation sites have remained undeveloped due to the policy emphasis on preservation of open space in its natural and largely undisturbed state that emerged in the late 1960s. The developed facilities include hiking, biking, and equestrian trails, beaches, and overnight walk-in camping spaces. The latter serve a wide State, national, and even international market and are heavily booked.

The Local Coastal Plans recommend limited "visitor-serving facilities" (overnight accommodations, food services, and tourist shopping areas). However, developed recreation and commercial recreation facilities are limited by the special conditions of the coast. Structures, camping, private recreational vehicles, and horses are to be prohibited in easement areas. Commercial recreation facilities, including riding stables, charter boats, and amusement or marine parks, require large land or water areas. These facilities are especially limited in Unit I, and where they exist, may be capable of supporting agriculture and therefore not suitable for conversion.

#### b. County-Owned Parks

While Federal, State, and regional parks and open space in Marin far exceed any available standard, the County-owned parks total only 897.6 acres (see Table PR-4 and Parks and Recreation Technical Report #1). Based on the estimated county population in the 1990 census, this is well below the standard of 20 acres per thousand residents shown in Table PR-1.

The parks and facilities owned and operated by the County and listed in Table PR-4 vary widely in type and size. They include: specialized facilities (boat launches and the Civic Center facilities); a community park (Deer Park); a neighborhood park (Bolinas); beaches (Agate Beach, as well as beaches at McNear's and Paradise Parks); and special reserves (Tiburon Uplands and Bolinas Lagoon). Although McNear's Beach and Paradise County Parks serve a countywide function and are thus classified as regional in the Facilities Inventory, only Stafford Lake and McInnis Parks meet the size and service area criteria for a true regional park. The total of 589 acres in these two parks represent a small portion of the 4,430 acres needed to meet the countywide regional parks standard. County regional park acreage meets the standard only in central Marin, in the Las Gallinas planning area where McInnis Park is located. While the standard may be unrealistic in light of Marin's extensive open space, it helps underscore a demonstrated need for additional countywide parks for active recreation.

**Table PR-2. Status of Facilities Recommended for Development  
and Acquisition in the 1965 Park and Recreation Master Plan**

| Recommended Facilities, 1965        | Status in 1990                   |
|-------------------------------------|----------------------------------|
| <b>1. Major Regional Parks</b>      |                                  |
| Deer Park                           | Marin County                     |
| Phoenix Lake                        | Marin Municipal Water District   |
| Nicasio Reservoir                   | Marin Municipal Water District   |
| Stafford Lake County Park           | Marin County                     |
| Stafford Lake - Watershed           | North Marin Water District       |
| Laguna Chileno                      | Private                          |
| <b>2. Shoreline Areas - Boating</b> |                                  |
| Muir Beach and Overlook             | Golden Gate National Rec. Area   |
| Bollinas Lagoon                     | Marin County                     |
| Agate Beach, Expansion              | Marin County (no expansion)      |
| Tomasini Point                      | Point Reyes National Seashore    |
| Miller Park                         | Marin County                     |
| Hog Island Boating Park             | Marin County (Miller Park)       |
| Toms Point Beach Park               | Audubon Canyon Ranch and Private |
| Estero Americano Park               | Private                          |
| Paradise Beach Park                 | Marin County (expanded)          |
| Keil Cove - Bluff Point             | Private                          |
| China Camp - Rat Rock Park          | State Park                       |
| Manzanita Marina Green              | Private                          |
| Corte Madera Marina                 | Private                          |
| Gallinas Creek Marina               | May be included in McInnis Park  |
| Black Point Marina                  | Private (with County Launch)     |

Table PR-2 (continued)

| Recommended Facilities, 1965                   | Status in 1990                                  |
|------------------------------------------------|-------------------------------------------------|
| <b>3. Golfing - Driving Ranges</b>             |                                                 |
| Rodeo Lagoon                                   | Golden Gate National Rec. Area<br>(undeveloped) |
| Corte Madera                                   | Golden Gate Bridge District - various<br>plans  |
| Lucas Valley                                   | Developed as residential                        |
| Nicasio Valley                                 | Private - rangeland                             |
| West Marin (San Geronimo)                      | Private                                         |
| Chileno Valley                                 | Private - rangeland                             |
| <b>4. Historic, Geologic and Botanic Areas</b> |                                                 |
| Tiburon Uplands                                | Marin County (expanded)                         |
| Elephant Rocks (Dillon Beach)                  | Private                                         |
| Estero Fossil Site                             | Point Reyes National Seashore                   |
| Olompali Adobe-Burdell Mountain                | State park                                      |
| <b>5. Wildlife and Stream Reserves</b>         |                                                 |
| West Marin Island                              | Private                                         |
| Bollinas Lagoon Refuge                         | Audubon Canyon Ranch & Marin<br>County          |
| Upper and Lower Tomales Bay                    | Private and State                               |
| Tidelands                                      | Private                                         |
| Papermill Creek                                | Private                                         |
| Nicasio and Halleck Creeks                     | Private                                         |
| Walker, Salmon and Chileno Creek               | Private and State                               |
| San Antonio Creek                              | Private                                         |

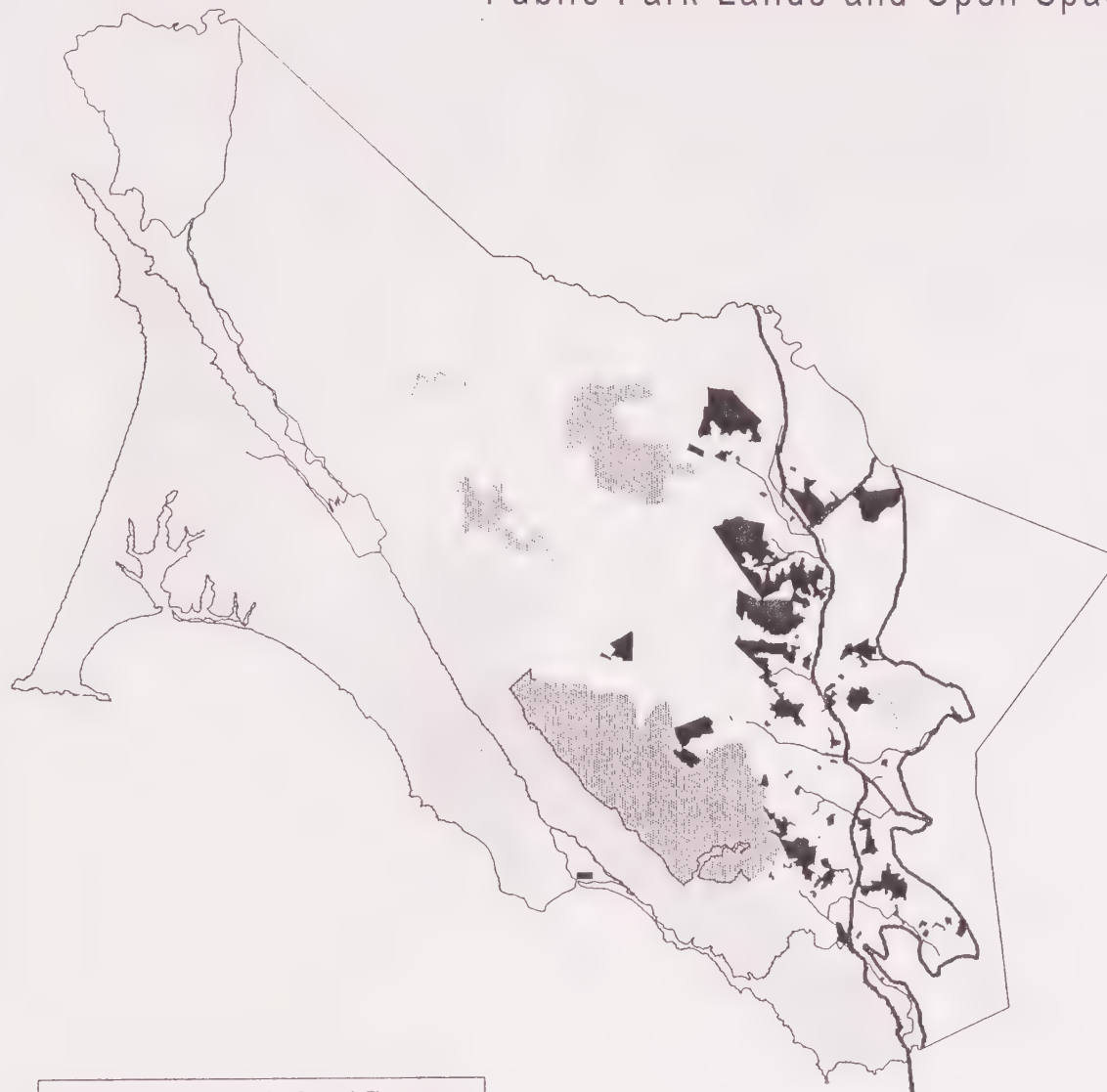
**Table PR-3. Recreation Facilities Under County Ownership  
in 1965 and Status in 1990**

| <b>Park Facilities in 1965</b> | <b>Acres</b> | <b>Status in 1990</b>           | <b>Acres</b> |
|--------------------------------|--------------|---------------------------------|--------------|
| Agate Beach                    | 6.6          | Managed by County (State-owned) | 6.6          |
| Black Point Boat Launch        | .8           | Managed by County (State-owned) | 2.0          |
| Bolinas Park                   | .7           | Marin County                    | 1.0          |
| Civic Center                   | 140.0        | Marin County                    | 75.0         |
| Drake's Bay                    | 54.3         | Point Reyes National Seashore   |              |
| McClure's Beach                | 3.5          | Point Reyes National Seashore   |              |
| Miller Park                    | 5.7          | Managed by County (State-owned) | 6.0          |
| Muir Beach Overlook            | 8.9          | Golden Gate National Rec. Area  |              |
| Paradise Beach                 | 19.1         | Marin County                    | 19.0         |
| Tiburon Uplands                | 18.6         | Marin County                    | 24.0         |
| <b>Total Acreage, 1965</b>     | <b>258.2</b> | <b>Total Acreage, 1990</b>      | <b>133.6</b> |

Source: Parks and Recreation Plan Facilities Inventory (1965)



Figure PR-1  
Public Park Lands and Open Space



### LEGEND



State and Federal Parks



Water District  
Watershed Lands



City and County Parks  
and Open Space

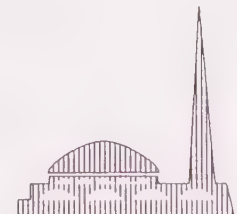


NORTH

0 5 miles



This map was developed for General Plan purposes.  
The County of Marin is not responsible or liable  
for use of this map beyond its intended purpose.



Marin County Planning Department

Because of the variety of facilities needed, no clear emphasis has emerged to suggest the future park and recreation activity in the county. In terms of specialized types of recreation facilities, the County emphasized boating in the 1965 Plan. Golf courses were also emphasized but, with the exception of the Mill Valley course, the former nine-hole Gallinas course, and the planned course at McInnis Park, these facilities have been developed privately. Significant changes in recreational interests have occurred since 1965, including most notably the growth of interest in hiking, running, horseback riding, and biking.

The Countywide Trails Element responds to the increased demand for trails for these purposes and especially for connections to and among the wide range of recreation areas in the county.

c. Local parks

The 1990 inventory of local, community, neighborhood, and mini-parks is summarized by planning area and ownership in the Parks and Recreation Technical Report #1. Several planning areas appear to be deficient in neighborhood park space, according to the typical neighborhood and community park distinctions and standards given in Table PR-1. These standards are suitable for planning purposes and are based on minimum size, acres per thousand persons, service area radius, facilities, and functions served. However, Marin exhibits several features that make application of standard park planning measures somewhat misleading. Due to the small size and geographic isolation of many neighborhoods and communities, mini-parks may serve as neighborhood parks while parks of less than five acres may offer facilities typical of community parks. For this reason, the classification of local parks in the technical report is therefore based upon the judgment of recreation directors of city and district parks.

For purposes of Quimby Act analysis, aggregate acreage in mini-, neighborhood and community parks (excluding school acres) is listed in Table PR-5 and compared with the requisite acreage in each planning area at both the three acres per 1,000 and five acres per 1,000 standards found in Government Code Section 66477(b). Section 66477(b) states that those standards are to be based upon the residential density but normally shall not exceed the proportionate amount necessary to provide three acres per 1,000 persons residing in a subdivision. However, if the amount of existing park acreage per 1,000 persons exceeds that limit, as it does in some parts of Marin County, a higher standard, not to exceed five acres per 1,000 persons in the subdivision, may be adopted.

**Table PR-4. County-Operated  
Park and Recreation Facilities, 1990**

| <b>Planning Area</b>             | <b>Facility Name</b>   | <b>Facility Type</b> | <b>Acres</b>   |
|----------------------------------|------------------------|----------------------|----------------|
| 1. Novato                        | Black Point            | Boat Launch          | 2.0            |
|                                  | Stafford Lake          | County Park          | 139.0          |
| 2. Las Gallinas                  | Civic Center           | County Facility      | 75.0           |
|                                  | McInnis Park           | County Park          | 450.0          |
| 3. San Rafael                    | McNear's Beach         | County Park          | 55.0           |
| 4. Upper Ross                    | Deer Park              | Community Park       | 53.0           |
|                                  | Elliot Nature Preserve | Open Space Preserve  | 38.0           |
| 5. Richardson Bay                | Paradise Beach         | County Park          | 19.0           |
|                                  | Tiburon Uplands        | Nature Preserve      | 24.0           |
| 8. West Marin                    | Agate Beach            | Beach & Marine       | 6.6            |
|                                  |                        | Study Area           |                |
|                                  | (Bollinas Lagoon)      | Nature Preserve      | (1200.0)       |
|                                  | Bollinas Park          | Neighborhood Park    | 1.0            |
|                                  | Miller Park            | Boat Launch          | 6.0            |
|                                  | Whitehouse Pool        | Fishing Access       | 22.0           |
|                                  | Upton Beach            | County Beach Park    | 4.0            |
|                                  | Chicken Ranch Beach    | County Beach Park    | 3.0            |
| <b>Total in County</b>           |                        |                      | <b>897.6</b>   |
| <i>Including Bollinas Lagoon</i> |                        |                      | <i>2,097.6</i> |

Source: Marin County Parks and Recreation Facilities Inventory, February 1978;  
updated April 1990.

**Table PR-5. Summary of Local Park Acreage  
by Planning Area (excluding Schools) and Comparison with  
Quimby Act Standards, 1990**

| <b>Planning<br/>Area</b>      | <b>Local<br/>Park<br/>Acreage</b> | <b>Required<br/>at 3<br/>per 1000</b> | <b>Surplus<br/>or<br/>Deficit</b> | <b>Required<br/>at 5<br/>per 1000</b> | <b>Surplus<br/>or<br/>Deficit</b> |
|-------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|
| Novato                        | 216.40                            | 163.55                                | 52.85                             | 272.58                                | (56.18)                           |
| Las Gallinas*                 | 61.00                             | 76.69                                 | (15.69)                           | 127.82                                | (66.82)                           |
| San Rafael Basin              | 126.90                            | 104.47                                | 22.43                             | 174.12                                | (47.22)                           |
| Upper Ross Valley             | 82.80                             | 72.59                                 | 10.21                             | 120.98                                | (38.18)                           |
| Lower Ross Valley             | 70.80                             | 88.94                                 | (18.14)                           | 148.23                                | (77.43)                           |
| Richardson Bay<br>Communities | 132.00                            | 130.84                                | 1.16                              | 218.06                                | (86.06)                           |
| West Marin                    | 26.00                             | 53.22                                 | (27.22)                           | 88.71                                 | (62.71)                           |
| <b>Total Marin County</b>     | <b>715.90</b>                     | <b>690.30</b>                         | <b>25.60</b>                      | <b>1,150.50</b>                       | <b>(434.60)</b>                   |

\* Excluding McInnis Park, which is defined as a countywide regional park.

Source: Marin County Parks and Recreation Facilities Inventory, updated April 1990; U.S. Census, 1990.



Table PR-5 shows that both Las Gallinas and Lower Ross Valley are deficient in aggregate mini-, neighborhood, and community park space, when the normal Quimby Act standard of three acres per thousand residents is applied. The county aggregate falls more than 350 acres below the upper Quimby standard of five acres per thousand. The latter standard approximates the de Chiara and Koppelman standard for neighborhood and community parks of 2.5 acres of each type per thousand residents.

In addition, it should be noted that local deficiencies throughout the planning areas may be greater than the aggregate figures suggest. This is because distribution of parks is often uneven due to the small size and relative isolation of individual communities, the topographic isolation of some neighborhoods, or the nature of city and service district boundaries. A further concern is that projected growth, especially in the Las Gallinas and Novato planning areas, which are already the most severely deficient in local park acreage, will require substantial additional neighborhood and/or community park space to achieve and maintain the standard provision.

The following list identifies those areas and neighborhoods in the City-Centered Corridor that city and district directors have identified as currently underprovided with local parks.

#### **Planning Area: 1 Novato Area**

Novato: All neighborhoods underprovided.

#### **Planning Area 2: Las Gallinas Valley**

Gallinas Village CSD: Santa Venetia underprovided.

#### **Planning Area 3: San Rafael Basin**

San Rafael: East San Rafael - Canal Area, Meadows Area, Bret Harte Area underprovided.

#### **Planning Area 4: Upper Ross Valley**

San Anselmo: Sequoia Area, end of Miracle Mile near San Rafael; and Hawthorne Hills, near Fairfax are underprovided.

Fairfax: No neighborhoods underprovided.

Ross: No neighborhoods underprovided.

### Planning Area 5: Lower Ross Valley

Larkspur: No neighborhoods within city limits underprovided.

Corte Madera: Entire area east of Highway 101 underprovided.

### Planning Area 6: Richardson Bay Communities

Mill Valley: No neighborhoods underprovided.

Tamalpais Valley CSD: Almonte underprovided. (Park and trails proposed for Martin's Triangle).

Strawberry: Seminary Drive - Strawberry Point underprovided.

Sausalito: No neighborhoods underprovided.

Marin City: Community underprovided.

Tiburon: No neighborhoods underprovided.

Belvedere: No neighborhoods underprovided.

#### d. The availability and effect of school parks

The formal or informal use of school fields and/or classrooms provides a major and essential supplement to publicly-owned and private recreation opportunities. Cooperative park and recreation arrangements with schools are in place in several cities and districts. These include:

### Planning Area 1: Novato Area

Novato: Cooperative arrangements in place with all schools.

### Planning Area 2: Las Gallinas Valley

City of San Rafael: - - -

### Planning Area 3: San Rafael Basin

Gallinas Village CSD: - - -

### Planning Area 4: Upper Ross Valley

San Anselmo: Wade Thomas - All fields and some classrooms shared.

Brookside - All fields and some classrooms shared.

Drake H.S - All fields and some classrooms shared.

Fairfax: White Hill - Soccer fields, baseball and baseball practice facilities.

Manor - Soccer fields, baseball and baseball practice facilities

Hidden Valley - Soccer fields, baseball and baseball practice facilities.

Ross: - - -

### Planning Area 5: Lower Ross Valley

Larkspur: - - -

Corte Madera: Neil Cummins School - Town Park.

### Planning Area 6: Richardson Bay Communities

Mill Valley: - - -

Tamalpais Valley CSD: Tamalpais Valley E.S. - Multi-purpose playfield par course, baseball, soccer; after-school program; marsh catwalk and nature study program; all funded by TVCSD.

Sausalito: - - -

Belvedere - - -

Tiburon: - - -

**Table PR-6. Summary of Local Park and School Acreage  
and Comparison with Quimby Act Standards, by Planning Area**

| <b>Planning Area</b>          | <b>Park<br/>Acreage,<br/>Including<br/>Schools</b> | <b>Required<br/>at 3 acres<br/>per 1,000<br/>persons</b> | <b>Surplus<br/>or<br/>Deficit</b> | <b>Required<br/>at 5 acres<br/>per 1,000<br/>persons</b> | <b>Surplus<br/>or<br/>Deficit</b> |
|-------------------------------|----------------------------------------------------|----------------------------------------------------------|-----------------------------------|----------------------------------------------------------|-----------------------------------|
| Novato                        | 418.80                                             | 163.55                                                   | 255.25                            | 272.58                                                   | 146.22                            |
| Las Gallinas                  | 215.10                                             | 76.69                                                    | 138.41                            | 127.82                                                   | 87.28                             |
| San Rafael Basin              | 223.10                                             | 104.47                                                   | 118.63                            | 174.12                                                   | 48.98                             |
| Upper Ross Valley             | 141.60                                             | 72.59                                                    | 69.01                             | 120.98                                                   | 20.62                             |
| Lower Ross Valley             | 172.80                                             | 94.35                                                    | 78.45                             | 157.26                                                   | 15.54                             |
| Richardson Bay<br>Communities | 280.60                                             | 143.27                                                   | 137.33                            | 238.76                                                   | 41.84                             |
| West Marin                    | 112.10                                             | 35.38                                                    | 76.72                             | 58.97                                                    | 53.13                             |
| <b>Total in County</b>        | <b>1,564.10</b>                                    | <b>690.30</b>                                            | <b>873.80</b>                     | <b>1,150.49</b>                                          | <b>413.61</b>                     |

Source: Marin County Parks and Recreation Facilities Inventory; updated April 1990; U.S. Census, 1990.



Table PR-6 summarizes the inventory of all local recreation acreage, including school property available for recreation use. The table shows that all planning areas exceed the three acre per thousand standard when school parks are included in aggregate figures. However, if schools become surplus to local school district needs, the total inventory of local park acreage may be reduced unless local action is taken.

e. Recreation Facilities

In those categories for which standards have been established, recreation facilities generally meet or exceed standard provisions. Table PR-7 summarizes provisions in each planning area for the principal facilities identified in the Facilities Inventory. In Table PR-8, the provision of these facilities is compared with the needs of the 1990 population according to the standards presented in Table PR-1.

Tables PR-7 and PR-8 indicate that:

Provision of 90-foot baseball facilities is substandard in all planning areas except the Coastal Corridor;

Provision of public tennis courts is substantially substandard in the Richardson Bay Communities and in the Inland and Coastal Corridors;

There is a shortage of certain other countywide facilities, namely, public golf courses, fully developed and lighted multiple sports facilities, swimming and diving pools, gymnasiums and community centers.

A comparison between the actual County supply and currently-accepted standards indicates that the supply of most of the listed facilities meets or exceeds typical minimum standards, with the exception of basketball and regulation baseball facilities. In terms of picnic areas and sites, the Lower Ross Valley and West Marin are not as well-served as each of the other planning areas.

f. Private recreation facilities.

Private recreation facilities significantly augment those provided by public agencies, but because they are both numerous, subject to change, and often expensive, these facilities are not included in the facilities inventory. Private facilities not included in the facilities inventory include: swim clubs, tennis, racquetball and softball courts, golf courses, and a growing range of other types of recreation facilities.

g. Summary of park and recreation deficiencies by community

Based on interviews with local parks and recreation directors, the following specific park and recreation facilities have been identified as inadequate :

**Planning Area 1: Novato Area**

Novato: Mini-parks no longer desirable due to limited use potential and high maintenance and liability costs; all active recreation areas, Community Centers, and school sites with athletic facilities are overused.

**Planning Area 2: Las Gallinas Valley**

Gallinas Village CSD: - - -

**Planning Area 3: San Rafael Basin**

San Rafael: Pickleweed Park - lacks sufficient parking  
San Rafael H.S. - lacks maintenance staff  
Davidson School - fields are overused  
Albert Park - field overused  
Shoreline Park undergoing development

**Planning Area 4: Upper Ross Valley**

San Anselmo: Memorial Park - overused  
Fairfax: Reopening of Town & Country Club for public use desirable  
Ross: Senior Center may be desirable

**Planning Area 5: Lower Ross Valley**

Larkspur: Remillard Park - walking trails and picnic tables needed  
Piper Park - softball fields overused  
Need for community centers  
Corte Madera: Neil Cummins School - Town Park facilities not fully developed  
Small craft area not yet fully developed  
Skunk Hollow - deteriorated equipment needs replacement

## Planning Area 6: Richardson Bay Communities

|                       |                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mill Valley:          | Community Recreation Center planned for 1992<br><br>Boyle Park and Middle School gymnasium overused due to lack of other facilities                                         |
| Tamalpais Valley CSD: | Recreation House - requires expansion                                                                                                                                       |
| Strawberry:           | Recreation building improvement needed<br>Brickyard Park development needed<br>County assistance with bikeway support facilities needed (countywide use at Belloc's Lagoon) |
| Sausalito:            | - - -                                                                                                                                                                       |
| Marin City:           | Comprehensive rehabilitation and security system for recreation center needed; transportation and staff for programs needed; additional park space needed.                  |
| Tiburon-Belvedere     | Community center with stage needed; launch area needed in Belvedere for windsurfers; skateboard area needed                                                                 |

### B. PARK AND RECREATION NEEDS

Two formal recreation needs surveys have been performed since preparation of the 1965 Master Plan. The first, conducted in 1972, was directed principally at the needs of youth in Marin. The 1977 Needs Survey was a relatively comprehensive effort, although both the 1977 and 1972 surveys suffered limitations of sample size and range of questions. For this reason and due to the significant changes in recreation patterns since 1977, the needs survey does not accurately reflect current needs and preferences. A discussion of the sample and summary of the results can be found in the Parks and Recreation Technical Report #1.

**Table PR-7. Summary of Selected Recreational Facilities  
by Planning Area, 1990**

| Planning Area          | Picnic<br>Sites | Baseball<br>Diamonds |     | Basket-<br>ball<br>Courts | Sport<br>Fields | Tennis<br>Courts | Swim<br>Pools | Indoor Facilities |                          |
|------------------------|-----------------|----------------------|-----|---------------------------|-----------------|------------------|---------------|-------------------|--------------------------|
|                        |                 | 60'                  | 90' |                           |                 |                  |               | Gyms              | Multi-<br>Use<br>Centers |
| 1 Novato               | 10              | 25                   | 11  | 75                        | 17              | 25               | 3             | 10                | 11                       |
| 2 Las Gallinas         | 8               | 19                   | 4   | 51                        | 20              | 18               | 8             | 3                 | 14                       |
| 3 San Rafael           | 10              | 16                   | 1   | 42                        | 12              | 18               | 2             | 3                 | 9                        |
| 4 Upper Ross<br>Valley | 11              | 11                   | 5   | 24                        | 9               | 11               | 2             | 3                 | 7                        |
| 5 Lower Ross<br>Valley | 9               | 12                   | 5   | 35                        | 10              | 20               | 4             | 3                 | 6                        |
| 6 Richardson<br>Bay    | 20              | 15                   | 3   | 55                        | 13              | 25               | 3             | 7                 | 14                       |
| 7 Inland<br>Corridor   | 0               | 2                    | 0   | 5                         | 2               | 0                | 0             | 0                 | 1                        |
| 8 Coastal<br>Corridor  | 3               | 5                    | 2   | 10                        | 6               | 5                | 0             | 3                 | 0                        |
| <b>Total</b>           | 71              | 105                  | 32  | 297                       | 89              | 122              | 22            | 32                | 62                       |

Source: Marin County Parks and Recreation Facilities Inventory, updated April 1990.



Table PR-8. Recreation Facility Needs, 1990

| Corridor                 | Baseball Diamonds |     | Basketball Courts | Tennis Courts | Swim Pools |
|--------------------------|-------------------|-----|-------------------|---------------|------------|
|                          | 60'               | 90' |                   |               |            |
| City-Centered Corridor:  |                   |     |                   |               |            |
| Novato                   | 7                 | 2   | (29)              | (1)           | (2)        |
| Las Gallinas Valley      | 10                | (1) | (3)               | 4             | 0          |
| San Rafael Basin         | 6                 | (4) | (21)              | 2             | (1)        |
| Upper Ross               | 3                 | 1   | (23)              | 1             | 0          |
| Lower Ross               | 2                 | 0   | (24)              | 5             | 1          |
| Richardson Bay           | (1)               | (5) | (41)              | 1             | (2)        |
| Inland Corridor          | 0                 | (1) | (6)               | (3)           | (1)        |
| Coastal Corridor         | 3                 | 1   | (1)               | 2             | (1)        |
| Net Deficiency in County | 30                | (7) | (148)             | 11            | (6)        |

Note: Recreational facility needs which are not listed in Table PR-8 can be found in the 1989 Survey of Parks and Recreation Directors in the Parks and Recreation Technical Report #1.

Source: 1990 Park and Recreation Facilities Inventory; 1990 U.S. Census; UPD Facility Standards.

The policies and recommendations of the element are based on a critical examination of the results of the 1977 survey discussed below, since no more current information is available. The findings are supplemented by the 1980 California Recreation Survey and are examined in the context of current population estimates, local park and recreation elements, observable trends in development location and patterns in Marin, and the observations of city and County Parks and Recreation staff.

1. The 1977 County Parks and Recreation Needs Survey

The survey was designed and conducted in November 1977, by the County Parks and Recreation Department and Del Davis Associates. The implications of the survey findings for future parks and recreation planning are further explored in light of the facilities inventory in the Parks and Recreation Technical Report #1.

The survey instrument concentrated on active recreation and structural improvements. The only attitudinal question included in the survey instrument concerned willingness to pay additional property taxes of \$10 to \$25 for park and recreational improvements. This produced a 68.5% positive response countywide. No other questions were included to assess attitudes to the availability, quality, and accessibility of parks and other facilities. However, some clear priorities and other more specialized needs, countywide and by planning area, emerge from analysis of the survey. The needs cited most frequently in the 1977 survey included:

Additional and improved bicycle trails;

More tennis courts and swimming pools;

Specialized recreation facilities including swimming, hiking and camping facilities for handicapped, and recreation centers for teens and elderly;

More intra-community, community-facility, and inter-facility hiking and riding trail links;

More picnic, day, and overnight camping facilities;

Community recreation buildings;

Additional organized sports facilities, especially for soccer;

More small boat access and launching areas; and

Racquetball and handball courts, and gymnasiums.

The most significant finding is the large number of respondents who indicated a need for more of what may be termed "basic" recreation facilities, like bike and hiking trails, campout and picnic areas, and swimming pools.

Bike and hiking trail improvements and additions were identified as the most needed improvements by approximately two-thirds of respondents in all planning areas. The Transportation and Trails Elements of the Countywide Plan address these needs.

Camping and picnic areas, traditionally provided in County parks, were also frequently and consistently identified for needed improvements. The survey also demonstrated that, despite the abundance of open space, some of Marin County's communities have not been keeping up with the demand for more facility-intensive recreation activities. More specifically, responses from communities in West Marin and in the Inland Rural Corridor reflect both special interests, such as equestrian trails, and the need for facilities that are more routinely provided for in urban communities, such as softball and baseball fields. Finally, the survey suggests new needs emerging as the county's population matures. For example, over 50% of Novato and Upper Ross Valley respondents expressed the need for recreation buildings serving senior citizens.

Positive responses from 25% respondents countywide may be regarded as the breakpoint, above which needs can be regarded as significant. If so, relatively little interest was shown in highly capital-intensive facilities and improvements. (Such suggestions mainly included stadiums, tracks and sports fields with lighting and extra seating.) However, several of the items most frequently mentioned, such as large parks for camping, imply the need for facilities that are usually beyond the ability of individual cities and unincorporated communities to provide.

The survey was generally inconclusive in regard to the varying needs between the three corridors. The Inland Rural and Coastal Recreation Corridor respondents appeared to share the same interests as urban corridor respondents. Exceptions included greater emphasis on organized team sport facilities and lesser emphasis on picnic areas and racquetball and handball facilities. A surprisingly high percentage in both rural corridors also expressed the need for more swimming and camping opportunities. However, the small number of respondents in these two corridors suggests that the results may not have been representative.

An examination of the results by planning area appears to be more instructive. A majority of the identified needs were felt most particularly in Novato, followed by the San Rafael Basin where the emphasis was on facilities for young people, and the Upper Ross Valley where interests were more representative of an aging population. Demographic trends since 1977 suggest that these variations remain valid.



In general, the 1977 Marin County Needs Survey findings regarding recreational preferences corresponded with the results of the 1980 California Recreation Study conducted by the State Department of Parks and Recreation and presented in the 1982 report, Recreational Needs in California. This survey found demand for additional recreation opportunities to be directed toward outdoor, nature-oriented activities such as fishing and hiking. An increased rate of growth was also projected for visiting historical and cultural exhibits and interpretive centers. The three most popular activities, jogging, bicycling and field sports, were projected to experience the greatest absolute growth because of the importance they had already achieved. However, it was anticipated that the rates of growth in these activities might be somewhat slower than the rate of population growth due to the increasing average age of the population.

## 2. 1989 Survey of Parks and Recreation Directors

During preparation of the draft element, the Recreation Directors of all the county's incorporated communities were interviewed. The intent of these interviews was to determine their park and recreation needs and, also, their views on the most appropriate role for the County. Each director was asked to provide observations of the community's views in this regard. Only Novato had compiled a recent inventory at the time of the interviews (see Parks and Recreation Technical Report #1 for a city-by-city summary).

Near unanimity was shown regarding the desirability of local operation of city parks and recreation programs. However, virtually every city and district stressed the need for continuing and expanding the County's leadership role in coordinating park and recreation activities countywide by providing a centralized information service, and developing more major regional parks for active recreation and open space management.

The Mill Valley and Novato Recreation Directors emphasized a need for joint acquisition, development, and operation of parks and recreation in peripheral areas such as Strawberry, the Homestead area, Tam Valley, and the environs of Novato and San Rafael. Assistance was also requested with facilities for non-resident visitors to Sausalito.

A listing of the priority needs identified by each city and district is provided below. The variety of needs underscores the appropriateness of local program management. However, if further joint development is determined to be a suitable and feasible role for the County, this role offers an opportunity to help meet special local, and countywide needs.



3. Special Needs and Groups in Each Planning Area Not Being Served by Either the Public or the Private Sector, by Planning Area

Planning Area 1: Novato Area

Novato: Community recreation center for all age groups; More athletic facilities needed for children, preteens and adolescents; Senior center needed to coordinate all senior services.

Planning Area 2: Las Gallinas Valley

Gallinas Village CSD: Indoor space needed and programs needed for children through adult singles and seniors; Multi-purpose parks needed for adolescents and handicapped; Play equipment needed for persons with disabilities.

Planning Area 3: San Rafael Basin

San Rafael: Playfields needed for preteens, adolescents, families and single adults; Child care needed; General programs needed for preteens; Community gardens for adult singles and families needed; play equipment needed for persons with disabilities.

Planning Area 4: Upper Ross Valley

San Anselmo: Additional indoor recreation space plus fully staffed program needed for children, preteens, and adolescents; Gymnasium needed; Multi-purpose parks needed for adult singles; Need for parks, indoor space, equipment and programs for persons with disabilities.

Fairfax: No response to survey

Ross: No response to survey

Planning Area 5: Lower Ross Valley

Larkspur: Multi-purpose center needed for all age groups

Corte Madera: Facilities needed for all age groups throughout the area east of Highway 101

## Planning Area 6: Richardson Bay Communities

|                       |                                                                                         |
|-----------------------|-----------------------------------------------------------------------------------------|
| Mill Valley:          | Room and programs needed for adolescents; room needed for seniors' activities.          |
| Tamalpais Valley CSD: | Indoor space, equipment, and programs needed for seniors and persons with disabilities. |
| Marin City:           | Recreation programs for adults and seniors needed                                       |
| Sausalito:            | No response to survey                                                                   |
| Strawberry:           | No response to survey                                                                   |
| Tiburon:              | No response to survey                                                                   |
| Belvedere:            | No response to survey                                                                   |

### III. PARK AND RECREATION ISSUES AND ALTERNATIVES

Examination of Marin's park and recreation needs in the context of the inventory and agency policies raises a number of policy, fiscal, and implementation issues. Despite the extensive open space in the county, significant needs for developed park and recreation opportunities exist. The central issues concerning the County's role in helping to meet these needs are: 1) determining the financial feasibility of expanded park and recreation provisions; and 2) selecting the appropriate types of parks, facilities and programs.

The County may choose any or all of the following roles which are discussed later in this section:

Acting as a coordinator of the activities and policies of regional and local park and recreation agencies;

Providing a central information source to local agencies and residents;

Providing continued and expanded countywide parks and facilities for active recreation.

## A. COORDINATION AND INFORMATION

In light of the overall abundance of open space, parks, and recreation facilities in terms of acreage and number of providers, the County could provide a valuable coordinating function. Preparation of the Parks and Recreation Element is the first step towards providing such policy coordination. Continued monitoring and updating should be provided to ensure that open space, parks and recreation agencies at all levels augment the system, and to ensure coverage of areas where deficiencies exist.

### 1. Parks and Recreation Policy Coordination

Policy coordination with the County will assist cities in determining:

How to interpret Quimby Act standards, using the higher five acres per thousand standard in sub-areas where unserved or underserved pockets exist;

When to require in-lieu fees rather than dedication;

How to obtain trail easements for implementation of the County Trails Element through the development process;

When supplementary assistance from the County may be appropriate to support acquisition and development of parks at county trailheads and intersections; and

Where it may be appropriate to donate to the Federal government trails or natural areas bordering on or providing access to the Golden Gate National Recreation Area.

In some cases, it may be appropriate for cities and recreation districts to donate trails and natural areas to the Open Space District or to enter into cooperative agreements for joint acquisition and management. Such arrangements would relieve local agencies of the financial burden of maintenance for natural parks and open spaces that serve both a countywide and local function. These agencies would achieve a greater ability to serve local needs for more active, developed recreation.

a. Centralized Database Preparation and Maintenance

Completion and maintenance of an adequate database is the key to providing coordination and centralized information. Ideally, all park and recreational needs and resources in Marin should be identified in a manner that permits periodic review and application of criteria for establishing priority needs.

b. Improvement and Maintenance of the Facilities Inventory

Thorough updating, augmenting, and automating the Parks and Recreation Facilities Inventory during preparation of the element, the County has made significant progress towards establishing a maintainable database. Some further refinements are desirable in the future and are recommended in the Parks and Recreation Technical Report #1.

The inventory will be of primary assistance to local agencies in planning for parks and recreation. In addition, the County could also provide information on parks, facilities and programs to the public. Offering such a public information service on an ongoing basis would be a costly undertaking. An annual publication, summarizing the inventory and providing local contacts for detailed information, might be more appropriate.

c. Recommendations for Updating the Parks and Recreation Needs Analysis

Preparation and conduct of a new comprehensive needs survey is a key recommendation of this element. A methodology is needed to supplement the consistent long-term staff knowledge and observation on which the County was able to rely in the past and which is increasingly hard to guarantee. Ideally, an entirely new and systematic survey should be designed and regularly repeated to achieve and maintain an accurate and useful picture of needs. A recommended format is provided in the Parks and Recreation Technical Report #1.

The requirements of the Quimby and Naylor Acts provide two important reasons why the County should undertake this monitoring and coordinating function.

2. Development of Naylor Act and Quimby Act Criteria

a. Quimby Act

Close coordination between the County and cities is essential for ensuring consistency in parkland dedication requirements and in-lieu fees.



Many cities, such as San Rafael, have collected park and recreation data and developed park and recreation plans for the city that include surrounding unincorporated areas as well as the area within the city boundaries. They can thus ensure that provision of parks, whether through dedication or use of in-lieu fees, in developments slated for annexation to the city will both meet city standards and be appropriately located so as to achieve even distribution. The effectiveness of such planning could be enhanced with overall monitoring by the County.

b. Naylor Act

Under the terms and conditions of the Naylor Act, an opportunity exists to preserve most surplus school sites, if a determination is made that the school facilities provide a valuable neighborhood or district-wide recreational need. This determination would be made by the local community and park and recreation agency, on a case-by-case basis. The Parks and Recreation Technical Report #1 contains a listing of all school sites in the county that could potentially be subject to the Naylor Act.

B. PARK AND RECREATION PROVISION BY THE COUNTY

In addition to providing information and policy coordination, the County may expand its role as a provider of parks and recreation. The earlier discussion of park and recreation needs has indicated a demand for more parks with facilities for active recreation. The County has the option to satisfy these needs directly, or through funding assistance and recommendations for policy changes, to see that they are met by other agencies.

Priority facility needs include: a golf course at McInnis Park to replace the former Gallinas course; a 50-meter swimming and diving pool if the pool at Indian Valley Colleges is no longer available in the future; and, provision for overnight group camping and day camps.

Numerous other options for active recreation activities not currently provided in the county should be examined individually in terms of need and interest, location, and feasibility. Proposals for certain types of developed recreation are expected to be controversial. However, increased active recreation opportunities, ranging from managed facilities for mountain bike riding to archery, are desirable to relieve pressure on natural parks and open spaces from inappropriate use. While a majority of Marin residents desire and respect natural areas, many residents would like more developed facilities. Such facilities will lessen unauthorized use of areas adjacent to existing parks and will serve as potential revenue generators.

## C. OPTIONS FOR FUNDING ACQUISITION AND OPERATION OF PARKS AND RECREATION FACILITIES

Even in Marin County, with its relatively well-developed tax base, municipal austerity programs have had a profound effect on the ability to acquire, develop, maintain and improve public parks and recreation facilities. Implementation of policies for expanding parks and recreation resources despite fiscal constraints will require creativity and ingenuity. The following section identifies both traditional and non-traditional approaches to obtaining and maintaining parkland and recreation resources.

### 1. Public Acquisition of Parklands

#### a. In-Fee Purchase

Traditionally, park and recreation agencies relied primarily on purchase of land for public parks in fee. The funding source was most often a budget allocation from the general fund, supplemented by bond issues for large and important purchases. City and County budgets now have little room for parks, even if a convincing case were made for a major expansion program. Although Marin County residents have shown a willingness to support bond issues for open space acquisition, it should not be assumed that bond money will be available for park purposes, or at least for all the expanded park acquisition, development and operations that appear to be needed.

The fact that very little new park land has been added to the 1977 inventory reflects the Proposition 13 curtailment of jurisdictions' ability to fund improvements, programs and maintenance from normal revenue sources. The effects of Proposition 13 only began to be felt after 1978. Moreover, between 1978 and 1991, local governments have also been affected by two recessions and curtailment of some outside funding sources. Voters have also been unwilling to approve bond issues for acquisition or construction of new recreation facilities.

However, funds for purchase may be available from other sources. A thorough exploration of available approaches should be undertaken regularly. The principal funding sources include Community Development Block Grant funds, State Bond funds, private foundation grants (e.g. the Marin Community Foundation), State Bond funds, and the State Roberti-Z'berg Urban Grant Program. Substantial grants are likely to be available only from the State funds. However, competition among jurisdictions and among projects is intense. Whenever possible, the County and other recreation agencies should seek ways to combine funding and acquisition sources, supplementing dedications, donations and easements with publicly or grant-funded acquisitions.

b. Negotiated Purchase

The major advantage of purchase, as opposed to condemnation, is that it is possible to reduce the initial cost through installment purchases or options to purchase. Under each of these alternatives, the price of acquisition is established but payment may be deferred, at least in part, until revenues from user fees or other sources are generated. The price paid to purchase land on an installment contract or deed of trust is normally higher than that paid in cash.

Purchase can be funded by bond issue, County funds, State or Federal program assistance, or private (foundation) sources. Proposition 13 also limits the local jurisdictions' ability to provide maintenance and operational funds, even if a bond issue is passed. These maintenance and operations funds must be provided from the existing \$4.00 limit on assessed value.

c. Gifts

Gifts of land for open space or park purposes can sometimes be obtained by offering tax incentives to donors. In cases where the donor wishes to remain living on the land, life estates can be developed. Although gifts are not expected to comprise a large source of parkland acquisition, this potential source could be stimulated by publicizing the tax advantages to major owners with an interest in open space, parks and recreation.

d. Eminent Domain

The use of eminent domain to acquire land for most open space uses is well established. The power to condemn land for the purpose of creating parks is less common and is politically undesirable. Ordinarily, eminent domain is used to acquire property only a few years before the desired use is to be developed. Eminent domain cannot be used to acquire land on an installment basis.

e. Use of the Development Process

As indicated above in the discussion of the Quimby Act, cities and counties are permitted to require that private developers dedicate land and/or pay in lieu fees for the purpose of park development. Standards set in each subdivision ordinance must show that existing parkland provision is below three acres per thousand or, in exceptional communities, five acres per thousand. Dedications or fees must serve the proposed development but parts may also be used by other adjacent residential areas.



Where parkland is in particularly short supply, cities may consider offering density bonuses or other incentives in return for excess dedications or fees. As with other uses of bonuses and incentives, available infrastructure and environmental conditions must be capable of supporting the additional units.

Cities should examine their subdivision ordinances to ensure that they provide sufficient flexibility with regard to the in-lieu fee option. It is often desirable to require payment of fees, in order to avoid acquiring land which is poorly located or otherwise unsuitable for park use. The fees can be used for purchase of a more suitable and easily developable site in the general vicinity.

Where a nexus can be found, developers may also be required to provide recreation easements as a condition of approval of a proposed project. Such easements should include all coastal access permits identified in the Local Coastal Program, segments of Countywide Trails and bikeways in accordance with the approved Trails Element of the Countywide Plan, and local access to the park associated with the development.

## 2. Less than Fee Acquisition of Parkland

### a. Zoning

In some cases, passive, visual open space may be desirable for improving the setting of a park or protecting a unique or otherwise valued resource for which access is not required. In such cases, local agencies may be able to avoid acquisition costs through the use of zoning.

However, while zoning can insure orderly, attractive, environmentally-sensitive development, it cannot prevent development. More permanent protection can be achieved through specific plans that require clustered development and preservation of a portion or portions of the site of a project in open space and/or public access easements.

### b. Agreements

As an alternative to zoning, agreements, worked out to the mutual satisfaction of both parties, may offer the simplest and most cost-effective method of meeting preservation objectives.



An example of such an agreement is a recreational easement for playing fields and tennis courts at the Hidden Valley School in Sleepy Hollow, acquired by the Marin County from the Ross Valley School District. The agreement stipulates that the area subject to the easement will be used in perpetuity for recreation except during school hours. The remainder of the property may be leased or sold by the school district.

c. Use and/or Acquisition of School Sites and Facilities

This key approach invokes the Naylor Act to augment the local inventory of park facilities by preserving surplus school sites for recreational use. See Section III.A.2.b for additional discussion.

d. Special Districts

Several of the special districts in unincorporated Marin County provide parks and recreation services and one, the Strawberry Recreation and Parks District, was established exclusively for this purpose. Such districts are now difficult to establish due to the effect of fiscal and economic constraints on voter preferences. However, the County could play an important indirect role in augmenting recreation opportunities by helping the proponents of new districts plan and promote their establishment.

3. Development, Maintenance and Program Funding

Funding limitations affect the ability of the County and other service agencies to acquire additional park space. Limited funding also restricts the ability of these agencies to develop new facilities and programs within existing parks and to operate and maintain existing facilities. Thus, apparent opportunities for no-cost or low-cost acquisition, such as excess school properties, become significant issues because of the additional burden they may represent in terms of development, operation and maintenance.

a. User Fees

User fees are a means of financing improvements, maintenance and programs. However, some county residents cannot afford private recreation or public facilities and programs for which user fees are charged. Some communities appear to have found a greater acceptance of charges for the use of recreation facilities and participation in recreation programs. Belvedere reports that its programs are 100% funded by fees; however, Belvedere is a relatively high income city.

Some communities may consider offering reduced rates for large families, packages of several programs, or use of several facilities for a period of time. Cities and special districts should also maintain regular cooperative arrangements, fee structures, and prepare joint information brochures to ensure the maximum service population for each facility and program. Many agencies are finding that their ability to finance needed programs is restricted by too small a market, which results from jurisdictional boundaries and sometimes overlapping services.

b. Public/Private Partnerships

In order to finance capital-intensive facilities, the County should consider partnerships with the private sector. When private funds are used to develop a major facility on County-leased land, the County receives minimum annual rent and a percentage of the gross. This financial arrangement could be used for facilities such as golf courses and marinas, which could also include restaurants and other revenue-producing facilities. Revenues generated from these facilities should be used to finance other park capital improvements and cover a substantial part of the maintenance and operation cost of the County park system. Public/private partnerships offer an innovative approach to funding major projects under the revenue constraints of Proposition 4. Projects financed in the above mentioned manner are subject to possessory interest tax, which exempts the project from the Proposition 4 limits on excess revenue uses.

#### IV. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

**Objective PR-1. Parks and Recreation System.** To plan and establish a park and recreation system which meets the various needs of County residents.

**Policy PR-1.1**      **Planning of facilities.** The County will plan its park and recreation facilities as a part of a comprehensive system of local, district, regional, State, and National parks and open space providing for active recreation, passive enjoyment and the protection of natural resources.

**Program PR-1.1a**      Ascertaining park needs. The County will continue to monitor use of all existing County parks and periodically conduct needs assessments on park needs. The County will regularly contact other park and recreation departments and agencies to determine their needs and park development status.

**Program PR-1.1b**      Acquisition plan. For each proposed parkland site, the County will prepare an acquisition plan to fulfill the needs in each needs assessment. The acquisition plan will include the following: property boundary determination, evaluation of geographical area served, study of alternative sites in the area, environmental review and a financing plan.

**Program PR-1.1c**      Resource analysis. After a parkland site has been acquired, and prior to the development of a master plan and capital improvement plan, the County will complete a resource analysis. This resource analysis will identify features of the parkland which have significant resource value and will provide a plan for future vegetation and wildlife management. When the parkland includes an aquatic element, the County will prepare a water management plan.

**Program PR-1.1d**      Master plan and capital improvement plan. The County will prepare a complete master plan and capital improvement plan for all acquired parkland sites. The master plan will include a site development plan showing proposed development. The capital improvement plan will include: a proposed time frame for development and estimated cost for each phase of the development, estimated cost of maintenance and operation, estimated potential for generating revenue from the site, and potential sources of funds for park development.



**Objective PR-2. Operations and Management.** To increase the supply of needed parklands and capital facilities and to replace closed facilities for which there an identified need.

**Policy PR-2.1**            **Increasing inventory of park land.** The County will continue its efforts to acquire additional acreage to expand existing Countywide parks. The County will add new Countywide parks in locations where there are identified needs, projected population growth or shifts, or land with an abundance of natural resources - such as shoreline and beachfront.

**Policy PR-2.2**            **Coordination with other providers.** The County will continue its efforts to provide facilities that will supplement and augment facilities offered by other park and recreation jurisdictions. The County will not develop facilities that are already offered by other park and recreation providers and which would compete for the same user group.

**Policy PR-2.3**            **Replacing closed facilities.** The County will attempt to replace countywide park and recreation facilities that are closed or that become unavailable for other reasons, if the need for these facilities still exists.

**Policy PR-2.4**            **Coordination of replacement efforts.** The County will coordinate efforts to replace closed popular countywide recreational facilities that are operated by other local jurisdictions or by the private sector.

**Policy PR-2.5**            **Capital facilities.** The County will plan for park and recreation capital facilities and pursue a variety of available funding sources.

**Program PR-2.5a**        **Capital improvement plan update.** The County Parks, Open Space and Cultural Services Department will update its capital improvement plan each year to keep the plan five years in advance of the current year. The plan will include a brief description of each project, its estimated cost, and how it will be funded.



Program PR-2.5b     User fees. The County will charge fees for use of park and recreation facilities when appropriate. Such fees and charges will be reviewed periodically and revised based on County resources, and public acceptance and need. The County will hold public hearings on user charges as required by State law when establishment of fees and fee increases is being considered by the Board of Supervisors.

Program PR-2.5c     Funding sources. The County will continue to pursue all available public and private funding sources to assist in the financing of park and recreation projects and programs.

**Objective PR-3.   Diverse Programs and Inter-jurisdictional Coordination.** To encourage the provision of recreation programs that meet the needs of diverse populations and are coordinated with programs provided by cities and special districts.

**Policy PR-3.1            Restriction on County services in cities or special districts.**  
The County will not offer organized recreation programs in areas that are served by cities, towns, or special districts.

**Policy PR-3.2            Assistance to unincorporated communities.** The County will assist unincorporated communities with the provision of recreation programs in these communities.

**Policy PR-3.3            Activities provided in County facilities.** The County will provide recreation activities which complement but do not duplicate activities provided in Federal and State parks.

Program PR-3.3a     Overnight camping in County parks. The County may consider including areas designated for overnight camping in future park master plans. Overnight camping by groups may be allowed in County parks with the approval of the Director of the Department of Parks, Open Space and Cultural Services. Overnight camping by individuals is not allowed in County parks.

Program PR-3.3b     Picnic facilities. The County will provide group picnic areas in most County parks and will charge fees for the use of these facilities.

**Policy PR-3.4**

**Assistance with special needs.** The County will provide assistance with special programs for special populations whenever possible. The County will try to insure that all parks are designed to meet the needs and financial means of the handicapped and senior populations. The County will review special programs annually and make revisions as appropriate.

**Policy PR-3.5**

**County as resource and facilitator.** The County will serve as a resource and facilitator for all agencies providing park and recreation facilities and services in the County.

**Program PR-3.5a**

Assistance to local agencies. The County Department of Parks, Open Space and Cultural Services will continue to provide practical and financial advice to local agencies on request. Assistance may include the following: providing information and advice on seeking funding, helping with lobbying for funds, providing advice on fees and charges, undertaking efforts to establish special districts, and negotiating with school districts, developers or other potential recreation providers.

**Program PR-3.5b**

Service to cities. The County will continue to provide assistance in developing policies and standards in support of efforts by cities to improve and expand the local park and recreation system.

**Program PR-3.5c**

Service to unincorporated communities. When necessary the County will work with unincorporated communities and special districts to provide park or recreation services with the understanding that ongoing services must be funded at the local level.

**Program PR-3.5d**

Resource staff. The County will act as resource staff to special districts or unincorporated areas needing assistance.



# TRAILS ELEMENT





## TRAILS ELEMENT

### TABLE OF CONTENTS

|                                                                      |    |
|----------------------------------------------------------------------|----|
| I. INTRODUCTION.....                                                 | 1  |
| A. LEGAL AUTHORITY .....                                             | 1  |
| B. RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS<br>AND DOCUMENTS..... | 1  |
| C. ORGANIZATION OF THE ELEMENT .....                                 | 3  |
| II. EXISTING CONDITIONS .....                                        | 3  |
| A. PRESENT STATUS OF TRAILS IN MARIN.....                            | 3  |
| B. TRAIL USERS.....                                                  | 4  |
| 1. Hikers .....                                                      | 4  |
| 2. Equestrians .....                                                 | 4  |
| 3. Bicyclists.....                                                   | 5  |
| C. TYPES OF TRAILS .....                                             | 5  |
| D. USES FOR TRAIL TYPES.....                                         | 6  |
| 1. Hiking-only Trails.....                                           | 6  |
| 2. Equestrian/Hiking Trails .....                                    | 6  |
| 3. Combined Use Trails .....                                         | 7  |
| 4. Paved Paths .....                                                 | 8  |
| E. TRAILS ACQUISITIONS.....                                          | 9  |
| 1. Coordination .....                                                | 9  |
| 2. Gifts .....                                                       | 9  |
| 3. Easement Dedication.....                                          | 9  |
| 4. Prescriptive Rights .....                                         | 10 |
| F. TRAILS DEVELOPMENT .....                                          | 11 |
| G. TRAILS MAINTENANCE .....                                          | 11 |
| H. TRAILS ACCESSIBILITY .....                                        | 11 |
| I. ACCESS FOR PERSONS WITH DISABILITIES .....                        | 12 |
| J. SAN FRANCISCO BAY AREA RIDGE TRAIL .....                          | 13 |
| K. BAY AREA BAY TRAIL.....                                           | 13 |
| III. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS .....         | 15 |

*Parks and Recreation Element:* Provides an inventory of parkland. Policies should be consulted whenever a particular trail alignment is being considered. Generally, proposed trails are extensions of existing trails and provide access to already publicly owned open space and parks.

*Trails Element Map Series:* the 23 maps in Appendix TR-2 used for planning and securing the trails system, all of which have been included in this element.

Technical Report #1, Trails Element: Discusses acquisition, development, maintenance, and liability of the trails network

*Transportation Element:* See Table TR-1.

Further references to trails of local significance may be found in city general plans and community plans for unincorporated portions of the county. Many short trails of local significance may not appear on the Countywide Trails Element maps, but may appear in community plans.

**Table TR-1. Relationship of Trails Element  
to other Plans and Elements**

| <b>Paths/Trails</b>                        | <b>Elements and Plan Documents</b>                                                        |
|--------------------------------------------|-------------------------------------------------------------------------------------------|
| Class I: Bicycle Path (paved, off-roadway) | Draft Bicycle Plan (1991)<br>Draft Transportation Element (1991)<br>Trails Element (1991) |
| Class II: Bicycle Lane (striped roadway)   | Draft Bicycle Plan (1991)<br>Draft Transportation Element (1991)                          |
| Class III: Bicycle Route (signed only)     | Draft Bicycle Plan (1991)<br>Draft Transportation Element (1991)                          |
| Unpaved Trails                             | Trails Element (1991)                                                                     |

## C. ORGANIZATION OF THE ELEMENT

This element and the Map Series in Appendix TR-2 identifies trails of city or countywide significance to be preserved and made available for public use. The element describes the various trail users and types of trails and discusses uses for trail types; methods of acquisition and development; and accessibility issues. The objectives, policies, and implementation programs in this document facilitate County planning and coordination for trails preservation, acquisition, and designation.

## II. EXISTING CONDITIONS

### A. PRESENT STATUS OF TRAILS IN MARIN

The total distance of all Marin trails open to the public in 1991 is 464 miles, including twenty-six miles of paved pathways (see Appendix TR-2). The County has also secured 47 miles of trail right-of-way. Most trails are situated on public lands or on private rights-of-way which have been purchased.

Many of the trails identified for preservation in this plan were originally constructed by the Marin County Fire Department as fire protection roads and fire breaks. Numerous fire protection roads pass through public and private lands, and they are maintained on an ongoing basis by the County Fire Department. Some old logging and ranch roads are also important links in the overall trail network.

Generally, proposed trails are extensions of existing trails and provide access to already publicly owned open space and parks.

Private property owners have had varied reactions toward use of their land. Some view trails and trails dedications as a development amenity which adds value to a project. Others tolerate or discourage use of their trails and access roads. On private trails throughout the central and western county, where grazing and other agricultural land uses predominate, a number of property owners allow individual or group use of their trails on a permission basis. Various equestrian organizations stage annual long distance riding events which require permission from landowners.

This element calls for additional 211 trail miles. When these trails are secured, a total of 722 miles of trail will be open to the public.



Suggested use of the new trails is as follows:

Hiking-only: 17 miles  
Equestrian/hiking trails: 71 miles  
Combined use trails: 57 miles  
Paved paths: 66 miles

The Trails Element calls for increasing the County's existing trail system by nearly 30%. In order for the County to achieve this goal, each jurisdiction must preserve designated trail segments when the opportunity arises. It is anticipated that implementation of this plan will take many years.

## B. TRAIL USERS

In brief, the following discussion will identify the three predominant trail users of Marin County: hikers, equestrians and bicyclists.

### 1. Hikers

Hikers represent a large and varied group of users ranging from a serious hiker or runner who may cover from 10 to 20 miles in one day to the casual hiker who may venture into an open space area for a short stroll and return home within a matter of minutes. Much of the hiking is done by individuals or small groups and some is done in conjunction with organized groups such as the Sierra Club, Elizabeth Terwilliger Foundation, Marin Discoveries, and other organizations. With the exception of some overnight hiking and camping areas in the Point Reyes National Seashore and GGNRA, most of the hiking is day use.

### 2. Equestrians

Equestrian use of the trails in Marin County is quite extensive. Use may be on an individual basis or in organized group trail riding activities. Most equestrian activities take place outdoors, because of the county's ideal climate and varied terrain.

Marin has a large number of active riding clubs and commercial equestrian facilities. Many experienced riders make long distance rides on the trails. It is anticipated that equestrian use of the trails will continue at this level for the foreseeable future.

### 3. Bicyclists

The popularity of multi-speed bicycles with narrow tires has encouraged bicycling for recreation and transportation purposes. Touring bikes are light and work well on paved surfaces. Some long-distance riders may cover 50 to 100 miles in a day's ride.

Mountain bikes, also known as all-terrain bikes or off-road bikes, have grown in popularity over the past several years. Because of their strong construction and gearing, mountain bikes can traverse both paved and unpaved surfaces and a wide variety of terrain. Many mountain bicyclists prefer an unpaved surface.

Mountain bicyclists are major users on unpaved trails throughout the county. Most public agencies in Marin allow mountain bike users on fire roads but not on narrow, single-track trails. Little scientific research exists on the impact of mountain bikes on public trail systems. A demonstration, or test, trail will allow the County to assess the impact of bicycles on single track trails.

Shared use and the avoidance of hazards on trails requires sensitivity on the part of all three user groups: mountain bicyclists, hikers, and equestrians. Mountain bike organizations are aware of the potential problems of conflicting use and are teaching their members proper trail etiquette, in an effort to achieve greater public acceptance.

### C. TYPES OF TRAILS

Three types of trails exist in the county:

*Single-track trails:* unpaved trails that vary in width and are too narrow for service vehicles. Gradients on these trails are usually varied with some obstructions and line of sight is usually less than 100 feet.

*Double-track trails:* unpaved trails that are wide enough to accommodate fire protection and service vehicles. Many of these trails were originally constructed as fire protection roads.

*Class I bicycle paths;* paved routes on a right-of-way, which are completely separate from a street and may include an unpaved section for pedestrians and joggers. An example of this type of path is the Tiburon bike path.

## D. USES FOR TRAIL TYPES

A use designation for each trail is primarily based upon physical characteristics of the trail, such as slope, width, clearance, line-of-sight, susceptibility to erosion, and safety for trail users. It is a goal of the County to provide varied and quality outdoor experiences for a range of trail users. Classifications are based upon the following user groups (see Table TR-1):

### 1. Hiking-only Trails

Hiking-only trails provide an interpretive experience in open space areas, without intrusion from other users that may detract from or diminish such an experience. This type of trail can be quite narrow, have various obstructions and may traverse steep gradients. If a footprint appears alone on the maps, it indicates a hiking-only trail.

In general, hiking trails are located within a 10 foot wide right-of-way. The physical improvements of the hiking trail may vary somewhat; however, a minimum tread width of two to three feet is normally required. On some steep slopes, the tread width may diminish to 12 to 18 inches, but only for short distances. Grades along a hiking trail may vary, although steep grades are tiring for hikers and may create erosion problems. Grades of 10% or less are desirable, but 15%-20% is generally acceptable for short distances. Publications listed in the technical report detail the physical requirements of these trails.

Exceptions to the criteria for hiking-only trails include:

Trails that were constructed specifically for hiking that do not have steep gradients and may be paved, such as the trail in Muir Woods; and,

Other trails designated as hiking-only by the governing land management agency such as the Marin Municipal Water District.

These trails are not appropriate for equestrian or bicycle use, due to concerns about quality of experience, safety, susceptibility to erosion, physical constraints such as steep gradients, narrow tread, overhead clearance, and obstructions.

### 2. Equestrian/Hiking Trails

These trails provide a leisurely horseback riding or hiking experience without the intrusion from other users who may detract from or diminish such an experience. A single horseshoe symbol appearing on a trails map represents a single-track trail for hiking and equestrian use. Such trails normally include substantial overhead clearance.



Equestrian/hiking trails are unpaved and located within a 10 to 20 foot right-of-way. The developed width of the trail can vary from 3 feet to 6 feet. Gradients for equestrian/hiking trails are similar to those for hiking trails. Publications listed in the technical report detail the physical requirements of these trails.

Exceptions to the criteria for equestrian/hiking trails include:

Trails that were specifically constructed for equestrian/hiking use-only, but may be wide enough to accommodate other users; and,

Other trails designated as equestrian/hiking-only by the governing land management agency.

Trails in this category are often narrow with steep or winding tread. They are not appropriate for bicycle use because of potential safety problems and diminished quality of experience.

### 3. Combined Use Trails

These trails provide an opportunity for joint use by mountain bicyclists, hikers, and equestrians. Shared use requires cooperation and sensitivity on the part of all users. This type of trail is indicated by a hoof print and circle symbol on a trail map.

Combined use trails offer substantial overhead clearance and a width (generally 10 to 12 feet) sufficient to safely accommodate multiple trail users. For the most part, these trails do not exceed moderately steep gradients. These trails often serve as fire protection roads, although some of trails are specifically designed for combined use.

Exceptions to the criteria for combined use trails include:

Trails that were constructed specifically for all three types of users but may be not wide enough for fire protection vehicles.

Trails that are designated as appropriate for hikers, equestrians, and bicyclists by the governing land management agency.

Trails that may be designated for specific user group combinations.



#### 4. Paved Paths


































Paved paths are multi-use trails. Equestrian use is generally not compatible with this type of trail, unless an unpaved area of sufficient width is provided along the side of the road. Plans and projects for paved bike paths are reviewed by the Bikeways Committee, a seven-member committee of the Parks, Open Space and Cultural Commission.

Eight feet is the minimum paved width of the Class I type paved path. Typically the path has a paved surface eight to ten feet wide and jogging or hiking areas along the shoulders. Where more than modest use is anticipated, a 10-foot paved section should be constructed. In addition to the paved section, the trail should include an unpaved 18 inch pedestrian/jogging path on either side. An ideal improved section is 13 feet can be accommodated within a 20 foot right-of-way on level surfaces. However, an additional right-of-way width may be necessary when slopes, buffers, or other improvements are taken into consideration.

The Bicycle Plan for Marin was adopted on December 2, 1975. It includes Trails Element recommendations regarding safety improvements and alignments of paved bike paths and bicycle routes along roadways, referred to as either Class I, II or III bicycle paths. Recommendations regarding Class I bicycle paths are also included in the Trails Element because Class I paths are open to pedestrians as well as bicyclists. The Trails Element also indicates where bicycles may be used on unpaved routes.

The circle symbol appearing alone on a trail map indicates a Class I type of multi-use path.

Table TR-2. Trails Element Map Series Legend

|                          | TRAIL<br>PROPOSED                                                                                                                                                                                                                                           | TRAIL<br>RIGHT OF WAY<br>SECURED                                                                                                                                                                                                                               | TRAIL<br>OPEN TO<br>PUBLIC                                                                                                                                                                                                                                        |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HIKING ONLY</b>       |                                                                                       |                                                                                         |                                                                                         |
| <b>EQUESTRIAN/HIKING</b> |    |    |    |
| <b>COMBINED USE</b>      |    |    |    |
| <b>PAVED PATH</b>        |    |    |    |

## E. TRAILS ACQUISITIONS

### 1. Coordination

A seven-member Trails Committee oversees trails planning for Marin County. This standing committee of the County Parks, Open Space and Cultural Commission meets monthly. The committee reviews upcoming development projects with the purpose of obtaining trails dedications, planning trails that connect publicly-owned lands, and making recommendations for development and implementation of the Trails Element policies.

The Planning Department and Open Space District are responsible for comprehensive trails planning. The Planning Department prepares the Trails Element and Trails Element Map Series. The Open Space District implements the Element and manages the trails. District staff and the Trails Committee review development permits for potential acquisition of trails designated in the Map Series.

Trails of local significance may not necessarily be represented in the Trails Element Map Series. These trails are often short, but offer local trail users with a multipurpose alternative to paved public roads. When proposed development threatens to remove these shorter trails, the County encourages local groups to preserve the trails.

### 2. Gifts

Gifts of trails and trail rights-of-way to a responsible agency, like the Open Space District, are viable means of preserving trails for public use. Along with the philanthropic reward, private property owners donating trail to a public agency may realize benefits, including: income tax benefits; relinquishment of legal liability and maintenance responsibilities; and additional trail security provided by the accepting agency.

### 3. Easement Dedication

County and city subdivision ordinances have legal authority to require easement dedications. The Supreme Court decision, *Nollan v. California Coastal Commission*, requires a direct nexus between an exaction and development impact. The *Nollan* decision requires that dedication requirements for public access directly respond to the type of burden on access created by development.

During the development permitting process, the County Planning Department and/or Open Space District may request dedication of a public easement for a trail. In many cases, the benefits gained through dedication offer sufficient incentive to encourage voluntary dedication.

Once the easement is secured through negotiation, the developer makes a formal offering of the easement. The easement is recorded on an addendum to the final map and in a separate written legal description. The property owner retains ownership and title to the land. The public is simply allowed use of the land for a trail. An easement offered for dedication is intended to run with the land in perpetuity.

Possible County responses to the offer of dedication are:

Consent to recordation of the easement. In this case, an easement is recorded as a legal description with the County Recorder. The easement does not disappear unless someone petitions to vacate it.

Rejection of the dedication. In this case, the easement is reserved as a legitimate right of the public, yet is not accepted by a public entity for trail development, maintenance, and liability. The offer of dedication may be subject to acceptance at a later date.

Acceptance of the dedication. In this case, responsibility for trail development, maintenance, and liability is accepted by a receiving entity. The receiving entity may be a jurisdiction, service district, or non-profit organization such as The Nature Conservancy. The assignment of the receiving entity should be made at the time of dedication.

Although dedication of trails and trail easements has been an important method of preserving trails within Marin County, public purchase of land has provided most trails.

#### 4. Prescriptive Rights

Trail preservation by prescriptive right is a method that has been utilized in Tiburon. The law provides that, in certain cases, when public access across private property has been unimpeded by the land owners for a period of five or more years, the public may have gained a permanent right of access to this trail without express consent of the owner.



## F. TRAILS DEVELOPMENT

A property owner or the public entity accepting an easement dedication is responsible for trail development. The cost of developing a trail is dependent upon several factors, including trail type, slope, soil condition, method of trail construction, and materials used.

A 1988 survey of the Golden Gate National Recreation Area, Open Space District, California State Parks, the Marin Conservation Corps, and the Trails Center, found that a four foot-wide hiking trail, constructed with a backhoe tractor by a skilled crew, typically costs between \$1.10 and \$1.50 per linear foot to construct. A hand crew, such as the Marin Conservation Corps, costs between \$3.00 and \$7.00 per linear foot. In 1988, the Open Space District purchased a trail-making machine for trails on District lands. The machine brings the cost of construction down to less than \$1.00 per linear foot.

In keeping with the Environmental Quality Element, it is a goal of the County to develop trails that do not encroach on sensitive habitats and adversely affect sensitive species. Some of the methods used to reduce the impact of trails on the environment include: creating a buffer zone or fence between trails and sensitive environments; routing trails away from sensitive habitats or to vista points which open a view to the habitats; enforcing pet control; and providing adequate signage.

## G. TRAILS MAINTENANCE

The maintenance of trails requires seasonal closures when appropriate, user group management, repair of amenities like benches and signs, trail drainage, brush clearing, and surface repair. The responsibility for trail maintenance rests with the property owner or the public entity accepting an easement dedication.

Maintenance work may be contracted out on a private basis or secured through a volunteer organizational effort. Organizations which may participate in trail construction and maintenance include the Marin Conservation Corps, the Tamalpais Conservation Club, the Sierra Club, equestrian groups, cycling groups, Boy Scouts and Girl Scouts, or neighborhood and community groups.

## H. TRAIL ACCESSIBILITY

Access to trails involves several factors, including parking, maps and literature, and continued access of trails for historic users.



Some trails, primarily those of greatest countywide significance, are developed with parking facilities and/or other amenities at trailheads. Trails used primarily by neighborhoods tend to have little or no parking. Availability of parking may be affected by the desires of local community, policies of the County or cities, or objectives of the land agency managing the trail. In areas where the popularity of public lands and trails causes parking congestion and neighborhood difficulties, local jurisdictions may institute parking restrictions. These restrictions reduce the local problem, but limit the ability of the wider public to reach public trails. For this reason, the County must be vigilant in preventing open space and trails from becoming private amenities at public expense.

Individuals can learn about the availability of public trails by obtaining literature and maps prepared by the managing agencies. Other maps and information can be found in guidebooks prepared by private sources. Trails that do not meet agency standards or are not legally open to the public may intentionally be excluded from these maps although they are regularly used by the public.

Some trails used by the public begin or continue onto private lands, which are subject to closure at the discretion of the landowner. Closure of privately owned trails long used by the public can create strong feelings of animosity between landowners and the historic trail users. In many cases, public land agencies may take action to guarantee public access to historic trails, including a request for trail easements dedicated during the development process, negotiation for the purchase of a trail easement, or pursuit of a prescriptive rights court case.

In some cases, historic trails on private land may be frequently used by particular user groups before the trail is acquired by a public agency. Depending on the agency's trail use policies, historic users may be precluded from further use of the trail when policies prohibit such use. Although the trail may become legally public where it was once private, a user group may view application of such trail use policies as an infringement upon its historic right of use. For this reason, the County encourages trails designation and design to give full consideration to the historic users of a newly acquired trail.

## I. ACCESS FOR PERSONS WITH DISABILITIES

Many trails lend themselves to use by persons with disabilities. Multipurpose pathways which accommodate pedestrians and bicycle riders are ideal for barrier-free access and should be planned accordingly. In most cases, existing gradients and curb cuts designed for cyclists offer satisfactory wheelchair access. Barriers placed at entrances to pathways for prohibiting entry by motorized vehicles must be designed to accommodate wheelchairs, unless such use would be unsafe or cause severe management problems.

In accordance with State and Federal accessibility policies for recreational facilities, the county's trails should be designed whenever possible in consideration of the abilities and interests of a diverse population, including persons with disabilities and the elderly. A sensitively designed trail must have a continuous "path of travel," meaning no breaks or interruptions in the route such as streams, impassable barriers or gates.

The trail should have a solid, slip resistant surface, and a continuous, unobstructed route of no more than 5% in slope. The cross-slope (side-to-side grade) should be no more than 2% to prevent tipping over and falls. Other important features include: safe, level, and accessible parking; accessible drinking fountains, toilets, phones; and trail information at the trailhead.

The County needs a map showing accessible trails and describing their characteristics. Currently, the County does not have a good map of accessible trails, although some portions of existing trails may already be accessible.

#### J. SAN FRANCISCO BAY AREA RIDGE TRAIL

The San Francisco Bay Area Ridge Trail is a Bay Area-wide trail project proposed by the Ridge Trail Council, a public/private partnership of 50 citizen groups, land management agencies, private business interests, and individuals. The 400-mile Ridge Trail will run along the ridges and hills that circle the Bay through nine Bay Area counties and connect existing public lands such as those owned by State Parks, National Park Service, regional parks, open space districts, and local water districts.

The Ridge Trail will provide recreational opportunities and dramatic vistas for hikers, equestrians, bicyclists, persons with disabilities. Many segments of the trail are now open to the public. The target date for completion of the trail is 1993.

To the greatest extent possible, the Ridge Trail has used existing County trails and rights-of-way. When trail connections necessitate use of private lands, private landowners have been approached to discuss voluntary dedication of public easement or land. In Marin County, the Ridge Trail goes through existing public lands or along alignments indicated on the Trails Plan maps adopted by the County in 1984.

#### K. BAY AREA BAY TRAIL

The Association of Bay Area Governments (ABAG) was directed by the State Legislature to prepare and adopt a plan and implementation program for a continuous recreational hiking and bicycle trail around the perimeter of the San Francisco and San Pablo Bays.

Under the authority of SB 100 (Lockyer), the plan must include a specific route which relates to existing park and recreational facilities and links existing and proposed public transportation facilities. The Environmental Impact Report for the Bay Trail was certified in June, 1989 and the final plan was adopted in July, 1989.

In Marin County, the Bay Trail follows some alignments already in public use like Paradise Drive in Tiburon and Point San Pedro Road in San Rafael. However, a portion of the trail between the Marin Civic Center and Route 37 in Novato uses the Northwestern Pacific Railroad right-of-way.



### III. OBJECTIVES, POLICIES, AND IMPLEMENTATION PROGRAMS

#### A. TRAILS PRESERVATION

**Objective TR-1. Trails Network Preservation and Identification.** To identify trails which serve a public purpose and preserve designated trails for public use.

**Policy TR-1.1**                      **Identification of trails.** The County shall identify all existing trails and trails proposed for preservation.

Program TR-1.1a                Trails Element Map Plan Series. The Trails Element shall include 23 detailed maps which indicate the existing and proposed trails throughout the county.

Program TR-1.1b                Identification of trail types. On trails maps, the county shall identify the four principal trail types, *hiking, equestrian/hiking, combined use and paved bicycle paths*, with designated symbols (see Table TR-2).

Program TR-1.1c                Status of trails. County maps shall use graphically distinctive symbols to indicate whether the status of a trail is *proposed, right-of-way secured only*, or an existing trail *open to the public*.

Program TR-1.1d                Designation criteria. The Trails Committee should develop and adopt criteria for designating trails for the different user groups.

**Policy TR-1.2**                      **Access across private lands subject to closure.** Where public trails begin or continue onto private land subject to closure, the County should attempt to secure permanent access across private lands through either a request for easement (voluntarily or through the development process), negotiating the purchase of an easement, or pursuing a case of prescriptive rights through the courts.

**Policy TR-1.3**                      **Acquisition of trails.** Through various means the County should acquire a network of trails that will serve a specific public purpose of access to or between public lands.



Program TR-1.3a      Trails fund for acquisition. The County should develop a fund for the acquisition of trails through purchase in compliance with AB 1600, Statutes of 1987. Purchase of trail easements and trails may be necessary in some cases where, because of timing or other reasons, other methods are not practical.

Program TR-1.3b      Priority list for acquisition. The County should develop and maintain a list of priorities for trail acquisitions through purchase, dedication or gift.

**Policy 1.4**              **Dedication of trails.** A public entity reviewing a development proposed on lands traversed by important trail connections may require the dedication of trail easements and/or the improvement of trails consistent with the adopted Trails Element.

Program TR-1.4a      Voluntary dedication of trails. The County should encourage project sponsors to grant trails easements when proposed or existing trails cross lands proposed for development.

Program TR-1.4b      Dedication requirements. Where appropriate, the County should utilize the County's Subdivision Ordinance, Title 20, to authorize dedication requirements.

Program TR-1.4c      Utilize prescriptive rights. The County should invoke California Civil Code Section 1007, defining "prescriptive rights", as a basis for dedication requirements where appropriate.

## **B. TRAILS PLANNING AND COORDINATION**

**Objective TR-2.**      Trails planning and coordination. To coordinate trails planning within the county.

**Policy TR-2.1**              **Planning and coordination.** The County shall coordinate planning for trails including trails acquisition, development and maintenance.

- Program TR-2.1a      Open space district responsibilities. The Open Space District should be charged with the formal responsibility for coordinating countywide trails planning, and acquisition, development, and maintenance of County or District owned unpaved trails.
- Program TR-2.1b      Consistent trails designation. The County shall promote consistency in trails designation especially for trails that pass between two or more jurisdictions.
- Program TR-2.1c      Annual evaluation of new trail construction and right-of-way acquisition. The County shall report the progress of new trail construction and right-of-way acquisition of the trails network annually to the Trails Committee.
- Program TR-2.1d      Project review for trails. The County Planning Department shall review each new proposed development for proposed trail designations in accordance with Trails Element maps.
- Program TR-2.1e      New trail rights-of-way. In some cases, as development occurs on private land, the existing trails may become access roads to new development. When this cannot be avoided, new trails rights-of-way should be provided away from developed roads where possible or along the side of the road if necessary.

## C. TRAILS DESIGN AND DESIGNATION

**Objective TR-3.      Trails design.** To design and develop trails and access which encourage broad public use, while protecting environmental resources on adjacent properties and minimizing trail user conflicts.

**Policy TR-3.1      Trails location.** Locate trails away from sensitive habitat areas such as wetlands and areas where endangered species may be adversely affected.

**Program 3.1a      Design trails for environmental protection.** Incorporate design measures that protect adjacent and nearby habitats. Suggested measures include:

Point access instead of linear trails near sensitive habitats;

Fencing that discourages human and domestic pet intrusion into sensitive habitats;

Buffer/transition areas between trails and wetlands planted with native vegetation to provide habitat and to buffer human impacts;

Domestic pet control; and

Signage.

**Policy TR-3.2**      **Protect adjacent property.** Design trails in consideration of adjacent property owners and their lands.

**Policy TR-3.3**      **Trails designation and user safety.** Trail design and designation should consider historic users and ensure user safety for a diverse range of trail users.

Program TR-3.3a      Historic Trail Users. Public agencies should be encouraged to give full consideration to the historic users of a newly acquired trail before applying trail use policies.

Program TR-3.3b      Demonstration mountain bike trails. The Open Space District should investigate the use of demonstration single-track trails in a test area on open space lands.

Program TR-3.3c      Trail maps and information. Public agencies managing public trails should provide readily available maps and information regarding their trail network and connections to adjacent public trails.

**Policy TR-3.4**      **Access for persons with disabilities.** Whenever feasible, design and develop trails with opportunities to meet the accessibility needs of all segments of the population.

Program 3.4a      Evaluation of existing trails. The County should assess each trail in the system for its potential use by persons with disabilities.

Program 3.4b      Public information. The County should prepare brochures which indicate the availability of barrier-free trails.

**Policy TR-3.5**                      **Multiple ingress and egress points.** Design trails with multiple ingress and egress points with appropriate signage to minimize the need for parking at trailheads.

Program TR-3.5a                Parking availability. The County should work with neighborhood groups to provide reasonable parking at access points.

#### D. TRAILS MAINTENANCE

**Objective TR-4.**                Trails maintenance. To ensure maintenance of trails owned by the County.

**Policy TR-4.1**                      **Trails maintenance responsibility.** Trails should be maintained by property owners or entities accepting dedicated trails or easements unless other arrangements have been contractually agreed upon.

Program TR-4.1a                Maintenance of County-owned trails. The Open Space District staff shall oversee the maintenance of County-owned trails unless other trails managing organizations agree to carry responsibility for maintenance.

Program TR-4.1b                Budget for maintenance of County-owned trails. The maintenance of trails should be recognized as a line item service/program with an annual budget allocation to a County department.

Program TR-4.1c                Trails obstruction ordinance. The County should consider an ordinance to prohibit dumping or placing of debris, brush, garden clippings or other materials on or near a public trail right-of-way or easement.





## APPENDIX TR-1. GLOSSARY OF TERMS



|                    |                                                                                                          |
|--------------------|----------------------------------------------------------------------------------------------------------|
| Bicyclist          | Includes bicyclists on Motocross (BMX), touring, and mountain bikes.                                     |
| Class I Path       | Off-roadway paved bicycle path.                                                                          |
| Class II Path      | Adjacent to roadway paved bicycle path.                                                                  |
| Class III Path     | Signed only paved bicycle path.                                                                          |
| Double-track trail | Unpaved trail, 8 to 10 feet wide.                                                                        |
| Equestrian         | Includes casual, group, competitive, and endurance riders and equestrian with disabilities.              |
| Hiker              | Includes runners, joggers, casual hikers, backpackers, interpretive hikers and hikers with disabilities. |
| Line-of-sight      | The maximum visible distance between two trail users.                                                    |
| Path               | Paved surface for bicycles, joggers and pedestrians.                                                     |
| Right-of-way       | Corridor within which the trail is constructed.                                                          |
| Single-track trail | Unpaved trails two to six feet wide with gradients as high as 20% in some places.                        |
| Tread              | Usable width of the trail.                                                                               |
| Trail              | An unpaved route.                                                                                        |
| Trailhead          | Trail connection to paved roadways.                                                                      |



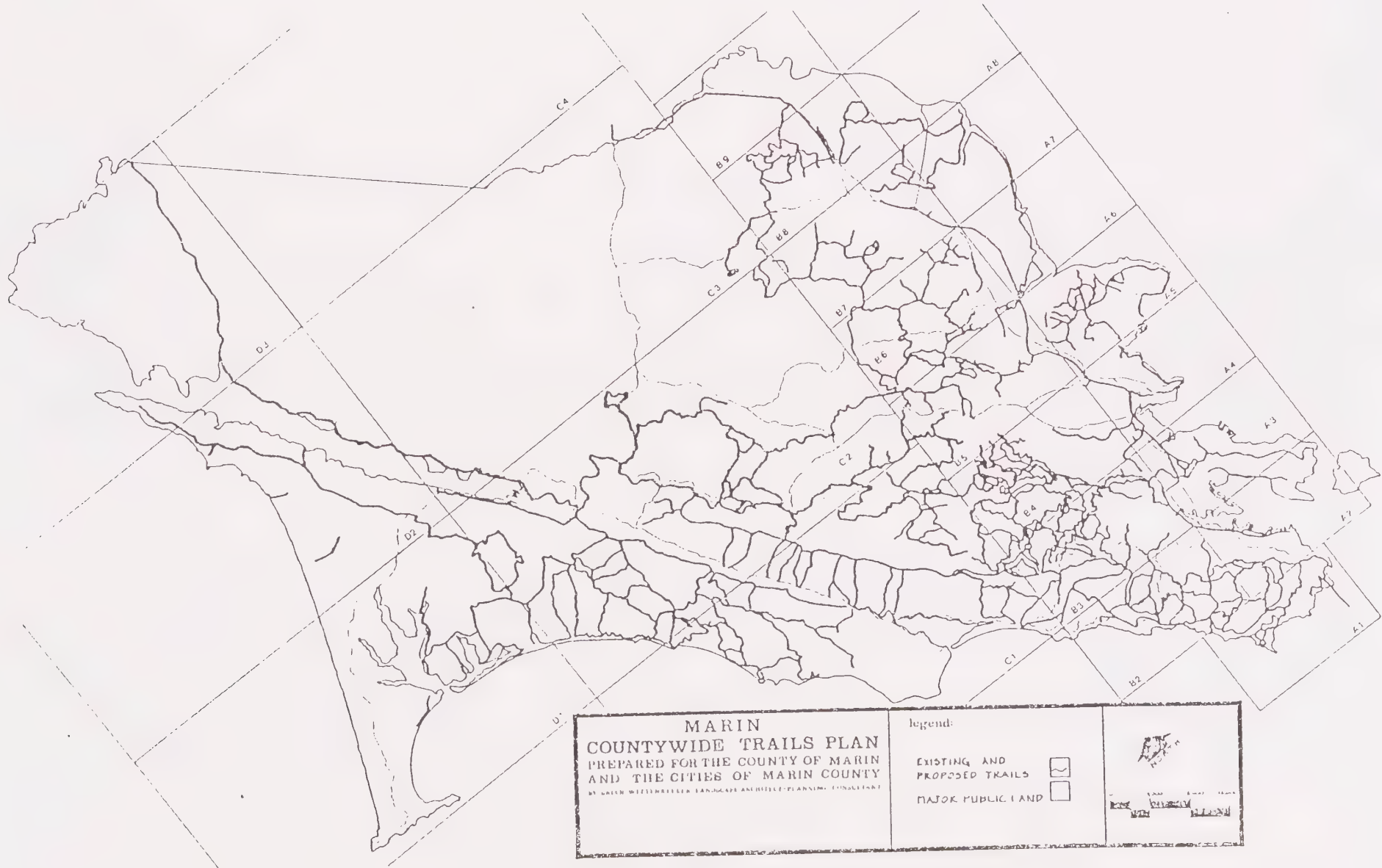


## **APPENDIX TR-2. TRAILS ELEMENT MAP SERIES**



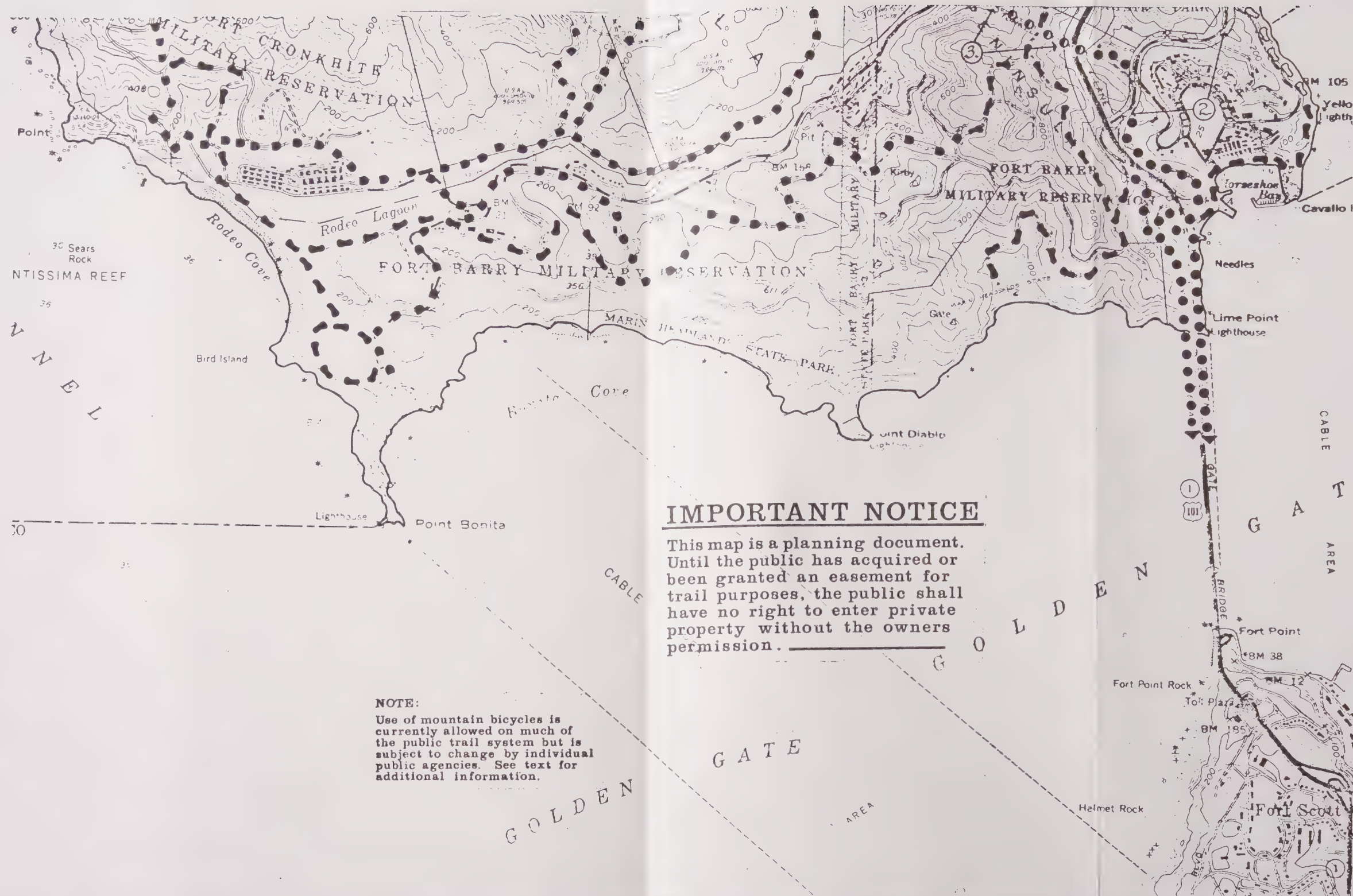
# Summary of Trails System

Trails Element  
Draft as of 8/30/91









## IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

### NOTE:

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### notes:

1. SEE G.G.N.R.A. TRAIL PLAN FOR GREATER DETAIL WITHIN WITHIN G.G.N.R.A. BOUNDARIES
2. BIKES SHARE ROADWAY
3. THE TUNNEL TO FT. CRONKHITE IS PROPOSED TO BE OPENED TO HIKERS AND BICYCLERS AFTER SAFETY IMPROVEMENTS HAVE BEEN MADE BY THE N.P.S. A RAISED SIDEWALK 5' WIDE ALONG THE SOUTH SIDE OF THE ROADWAY IS BEING CONSIDERED.

## MARIN COUNTYWIDE TRAILS PLAN

PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY DEC COMM. 8/22/84; PC 9/14/84

APPROVED BY BOARD OF SUPERVISORS

REVISED 12/88

DATE

DATE 12/16/84

### legend:

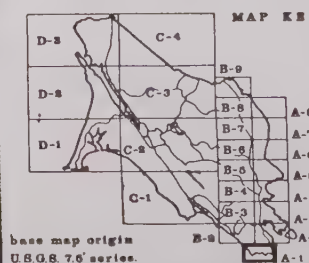
HIKING ONLY

EQUESTRIAN/HIKING

COMBINED USE

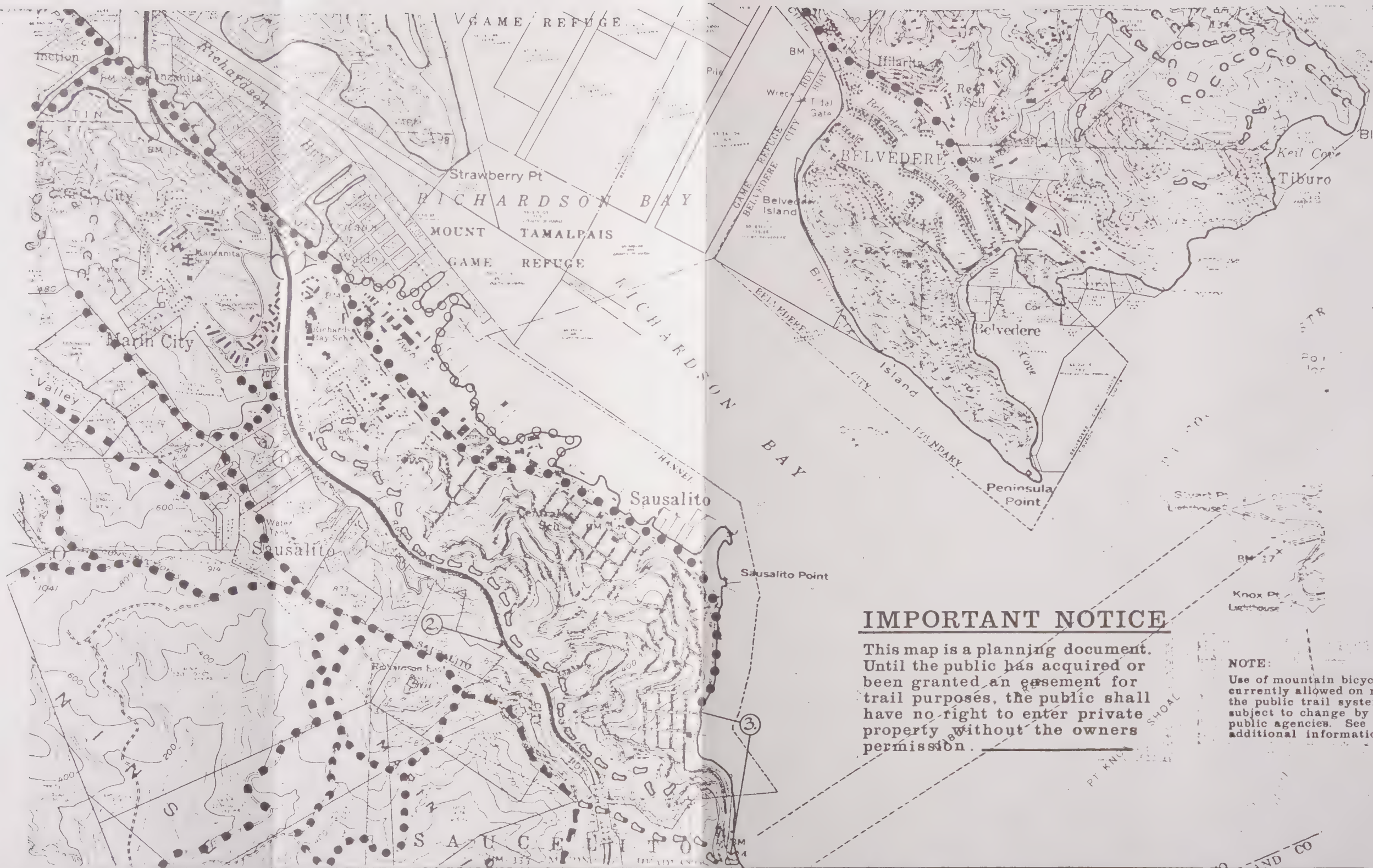
PAVED PATH

| TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|----------------|----------------------------|----------------------|
| ○ ○ ○ ○ ○      | ● ● ● ● ●                  | ■ ■ ■ ■ ■            |



A-1





## IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

### NOTE:

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### notes:

1. SEE GGNRA TRAIL PLAN FOR GREATER DETAIL WITHIN GGNRA BOUNDARIES.
2. PEDESTRIAN ACCESS REQUIRED.
3. BIKES SHARE UNMARKED ROADWAY

## MARIN COUNTYWIDE TRAILS PLAN

PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY PEC COHM 8/22/84; PC 9/24/84

APPROVED BY BOARD OF SUPERVISORS

REVISED 12/88

DATE

DATE 10/16/84

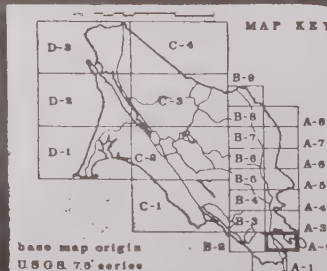
### legend

HIKING ONLY

EQUESTRIAN/HIKING

COMBINED USE

PAVED PATH



NORTH



A-2

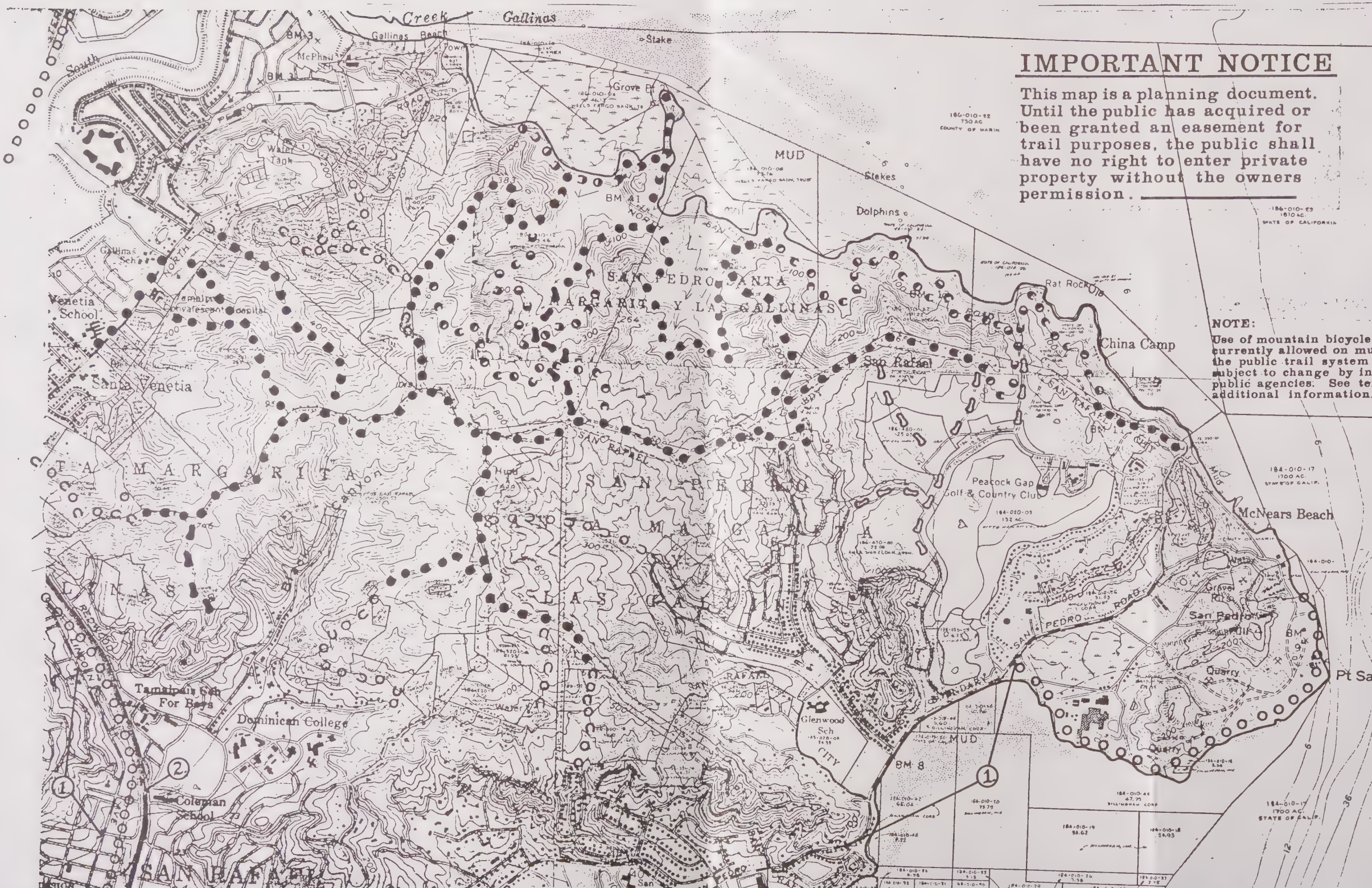












# **IMPORTANT NOTICE**

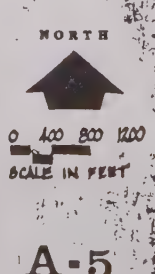
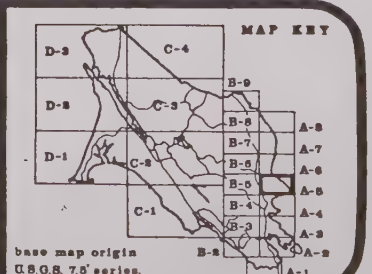
This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

**NOTE:**  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

- notes:**
1. BIKES SHARE ROADWAY
  2. EXISTING PEDESTRIAN OVERPASS

**MARIN**  
**COUNTYWIDE TRAILS PLAN**  
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY  
BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT  
RECOMMENDED BY P.C. COMM. 8/14/84, P.C. 9/14/84  
APPROVED BY BOARD OF SUPERVISORS  
REVISED 12/84

- legend:**
- |                   |                |                            |                      |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
| EQUESTRIAN/HIKING | COMBINED USE   | PAVED PATH                 |                      |











NOTE:  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

STATE OF CALIFORNIA  
57-192-02  
12,800 AC.

## IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

S A N

notes:

## MARIN COUNTYWIDE TRAILS PLAN

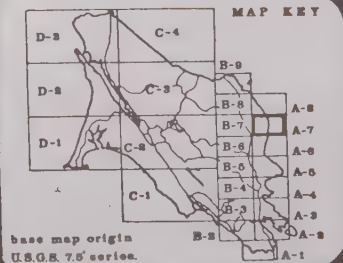
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P.C. COMM. 8/12/84; PC 9/14/84 DATE 10/16/84  
APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84  
REVISED 12/89

### Legend:

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | —              | —                          | —                    |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | OCO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |



A-7





# IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

## NOTE:

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.



## notes:

Blank lines for notes.

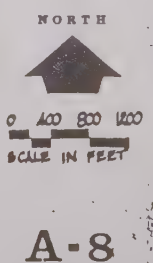
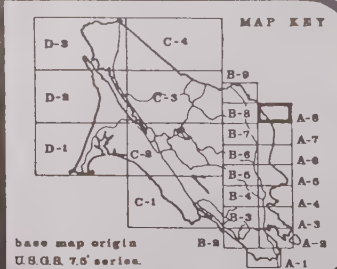
# MARIN COUNTYWIDE TRAILS PLAN PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT  
RECOMMENDED BY P.E.C. COMM. 8/12/84; P.E.C. 9/24/84  
APPROVED BY BOARD OF SUPERVISORS  
REVISED 12/88  
DATE 10/16/84

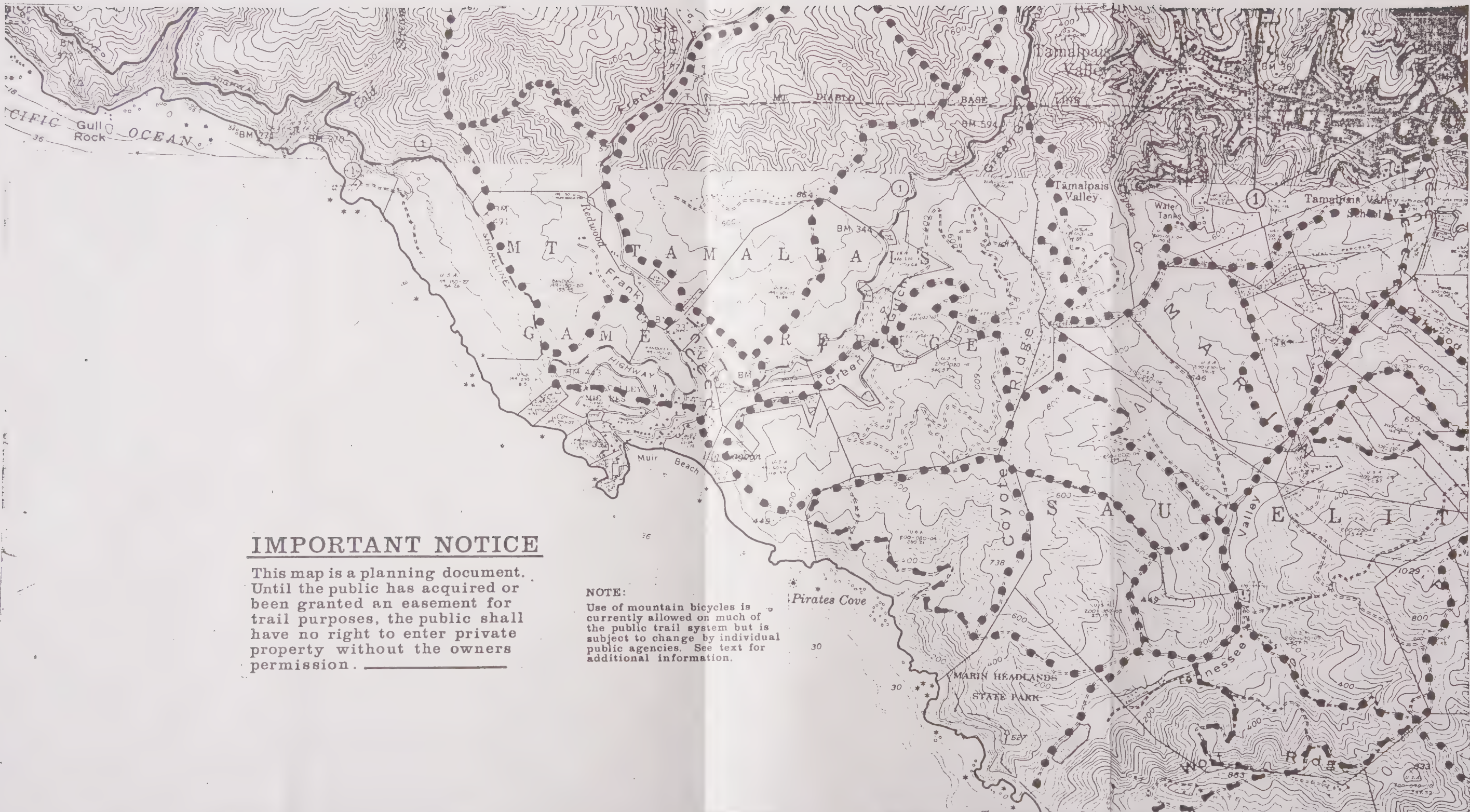
## legend:

HIKING ONLY  
EQUESTRIAN/HIKING  
COMBINED USE  
PAVED PATH

TRAIL PROPOSED  
TRAIL RIGHT OF WAY SECURED  
TRAIL OPEN TO PUBLIC







# **IMPORTANT NOTICE**

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

**NOTE:**  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

**notes:**

1. BIKE / PEDESTRIAN PATH ON HWY. 1 RIGHT OF WAY

---



---



---



---



---



---



---



---



---



---

**MARIN**  
**COUNTYWIDE TRAILS PLAN**  
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY  
BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT  
RECOMMENDED BY P&C COMM. 8/22/84; P.C. 9/24/84  
APPROVED BY BOARD OF SUPERVISORS  
REVISED 12/89

DATE 10/16/84

**legend:**

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | —              | —                          | —                    |
| EQUESTRIAN/HIKING | —              | —                          | —                    |
| COMBINED USE      | —              | —                          | —                    |
| PAVED PATH        | —              | —                          | —                    |

**MAP KEY**

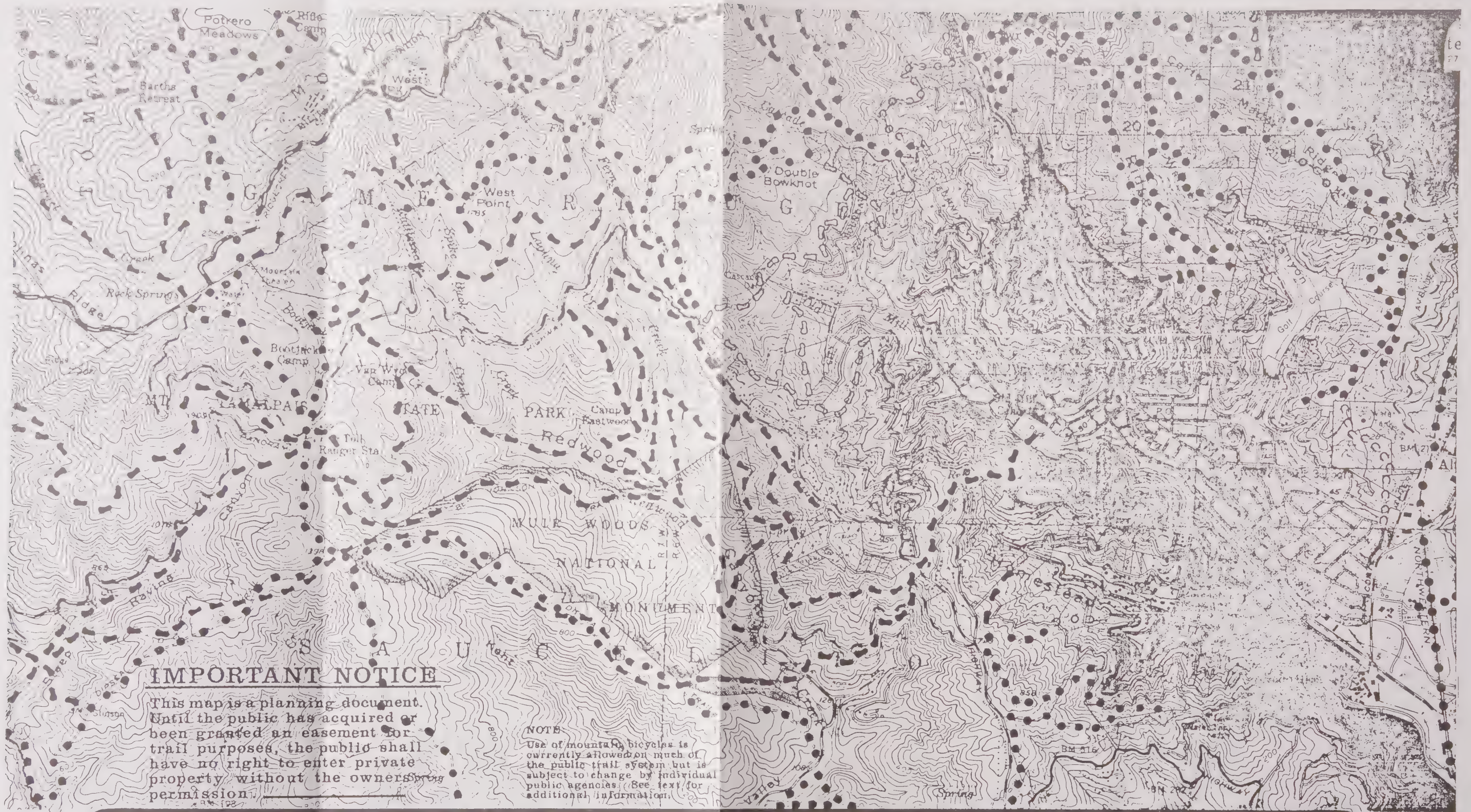
**base map origin**  
U.S.G.S. 7.5' series.

**scale in feet**  
0 400 800 1200

**NORTH**

**B-2**





### IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners' permission.

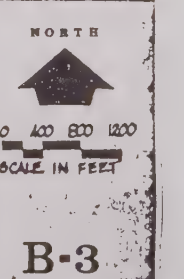
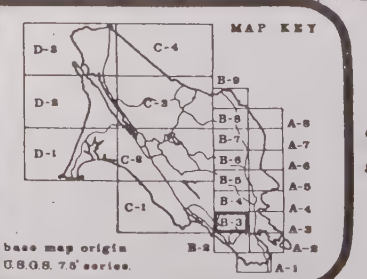
**NOTE**  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. (See text for additional information.)

**notes:**  
1. M.M.W.D. POLICY REGARDING TRAIL USE BY EQUESTRIANS IS CURRENTLY UNDER STUDY. (2-B3)

**MARIN COUNTYWIDE TRAILS PLAN**  
PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY  
BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT  
RECOMMENDED BY P.C. COMM. 8/22/84; P.C. 7/24/84 DATE 10/16/84  
APPROVED BY BOARD OF SUPERVISORS DATE 12/99  
REVISED 12/99

**legend:**

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OOO            | OOO                        | OOO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |







# IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owner's permission.

## NOTE

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### notes:

1. TRAIL SHARES ROADWAY.
2. EQUESTRIAN RING AT FAIRGROUNDS.
3. TAMARANCHO BOY SCOUT CAMP. ALLOWS PUBLIC USE OF TRAILS BY PERMISSION; SUBJECT TO ALL CAMP RULES. HORSES MUST STAY ON ROADS.
4. PROPOSED PEDESTRIAN EQUESTRIAN BRIDGE.
5. BIKES SHARE ROADWAY, CL II BIKEWAY RECOMMENDED.

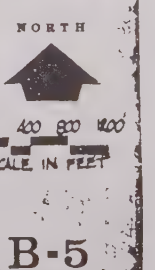
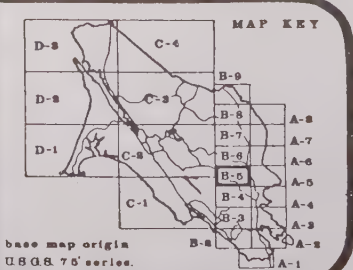
## MARIN COUNTYWIDE TRAILS PLAN PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

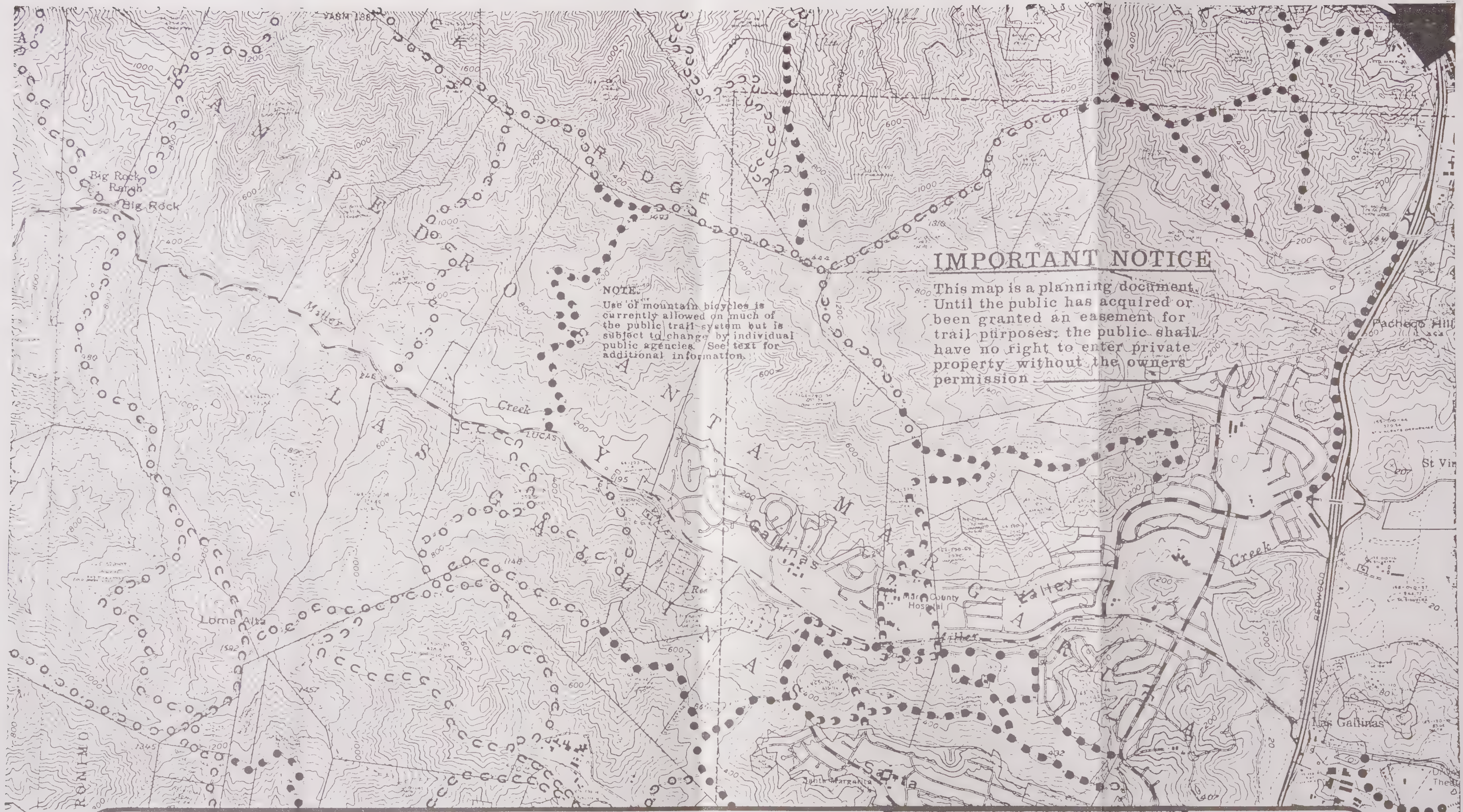
RECOMMENDED BY PIC COMM. 8/22/84; P.C. 9/24/84  
APPROVED BY BOARD OF SUPERVISORS DATE 10/19/84  
REVISED 12/83

### legend:

- HIKING ONLY
- EQUESTRIAN/HIKING
- COMBINED USE
- PAVED PATH







# IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

NOTE: Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

notes:

---



---



---



---



---



---



---



---



---



---

**MARIN**  
**COUNTYWIDE TRAILS PLAN**  
 PREPARED FOR THE COUNTY OF MARIN  
 AND THE CITIES OF MARIN COUNTY  
 BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT  
 RECOMMENDED BY P.C. COMM. 8/22/84; P.C. 9/14/84 DATE  
 APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84  
 REVISED 12/88

legend:

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | ...            | ...                        | ...                  |
| COMBINED USE      | o o o          | o o o                      | o o o                |
| PAVED PATH        | ooo            | ooo                        | ooo                  |

**MAP KEY**

base map origin  
 U.S.G.S. 7.5' series.

**NORTH**

0 400 800 1200  
 SCALE IN FEET

**B-6**





NOTE:  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

#### notes:

1. BIKES SHARE ROADWAY
2. BIKES ON FUTURE FRONTAGE RD. OR SEPARATE R/W. CAL TRANS TO PROVIDE FOR BIKE TRAVEL ON U.S. 101 SHOULDERS BETWEEN HWY 37 AND ROWLAND BLVD. UNTIL OFF-HIGHWAY FACILITY IS PROVIDED.

## MARIN COUNTYWIDE TRAILS PLAN

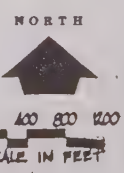
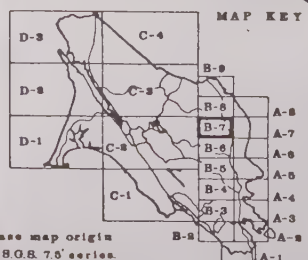
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P&C COMM. 8/22/84; P.C. 9/24/84 DATE 10/16/84  
APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84  
REVISED 12/82

#### Legend:

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | OCO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |



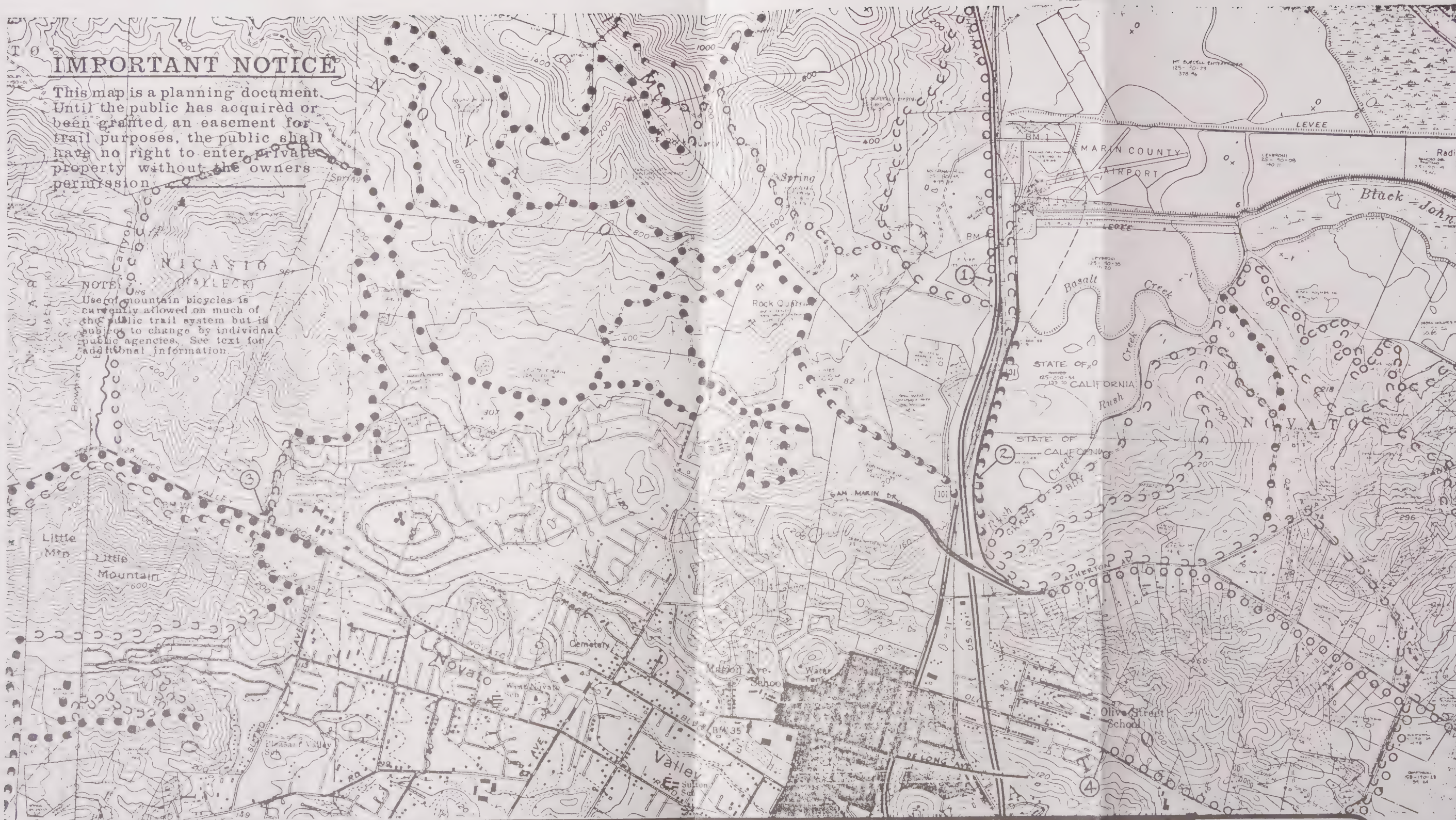
B-7



# IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

NOTE: Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.



## notes:

1. BIKES SHARE ROADWAY (FRONTAGE RD)
2. PEDESTRIAN & EQUESTRIAN PATH CROSSES UNDER FREEWAY ON FRONTAGE RD. WITH AT GRADE CROSSING OF R.R. TRACK.
3. INSTALL HORSE CROSSING SIGNS WHEN TRAIL OPENS.
4. SEPARATE BIKE PATH TO WHERE ROAD IS WIDE ENOUGH FOR BIKE LANE.

## MARIN COUNTYWIDE TRAILS PLAN

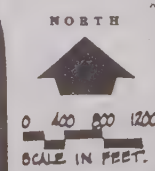
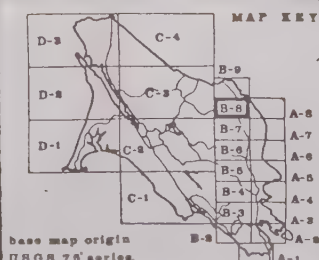
PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P&C COMM. 8/22/84, PC. 2/29/84 DATE 10/16/84  
 APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84  
 REVISED 12/88

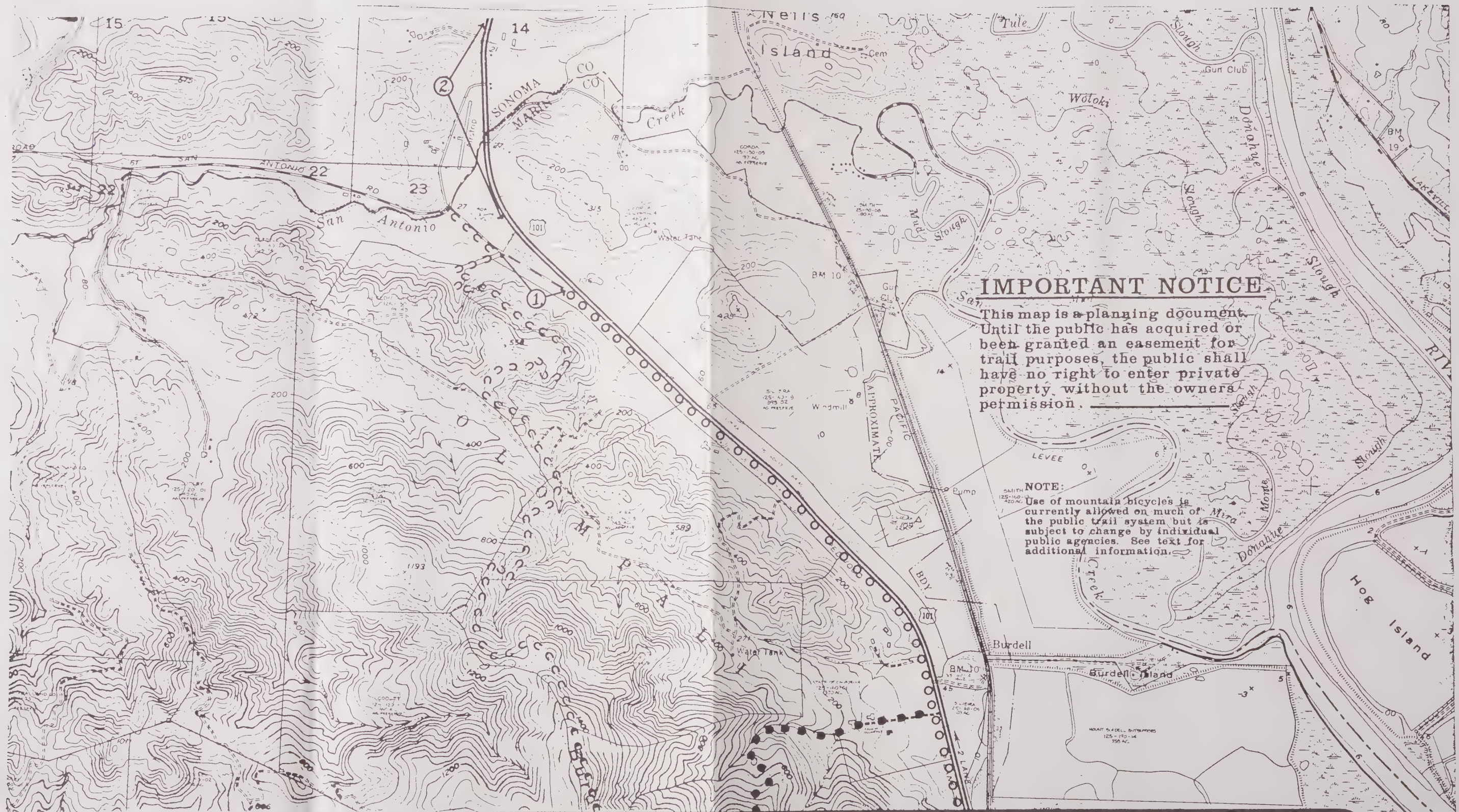
## legend:

- |                   |                |                            |                      |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
| EQUESTRIAN/HIKING | OCOCOCOC       | OCOCOCOC                   | OCOCOCOC             |
| COMBINED USE      | OCOCOCOC       | OCOCOCOC                   | OCOCOCOC             |
| PAVED PATH        | OCOCOCOC       | OCOCOCOC                   | OCOCOCOC             |



B-8





### IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

#### NOTE:

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

#### notes:

1. TO PETALUMA AND SONOMA CO. ON EXISTING ROADS
2. U.S. 101 SHOULDERS OPEN TO BIKES FROM SAN MARIN DR. TO SOUTH PETALUMA BLVD.

## MARIN COUNTYWIDE TRAILS PLAN

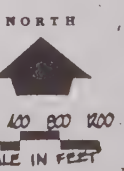
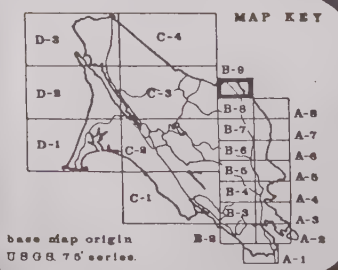
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P&C COMM. 8/22/84; PC 2/24/84 DATE 10/16/84  
APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84  
REVISED

#### legend:

|                   | TRAIL PROPOSED | TRAIL RIGHT-OF-WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | OCO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |



B-9



**NOTE:**

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

**IMPORTANT NOTICE**

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners' permission.

**notes:**

1. M.M.W.D. POLICY REGARDING TRAIL USE BY EQUESTRIANS IS CURRENTLY UNDER STUDY
2. G.G.N.R.A. & PT. REYES TRAILS BASED ON N.P.S. TRAIL PLAN DATED FEB. 1976

**MARIN  
COUNTYWIDE TRAILS PLAN**

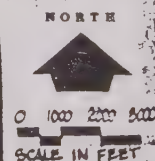
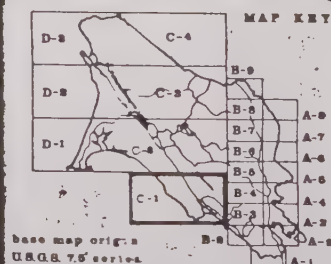
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT - PLANNING CONSULTANT

RECOMMENDED BY P.E.C. COMM. 8/12/84 DATE 9/24/84  
APPROVED BY BOARD OF SUPERVISORS DATE 10/14/84  
REVISED

**legend:**

|                   |                |                            |                      |
|-------------------|----------------|----------------------------|----------------------|
|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | OCO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |



**C-1**





NOTE:  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

- notes:**
1. PROPOSED TRAIL ALONG HWY CORRIDOR MAY BE LOCATED ALONG IMPROVED ROAD SHOULDERS OR MAY BE LOCATED OFF-ROAD AS A SEPARATE PATH WHEN TERRAIN ALLOWS AND R/W CAN BE SECURED. THE ABANDONED R.R. ALIGNMENT ALONG THE SHORELINE MAY BE USED WHERE APPROPRIATE.
  2. C.L. II BIKEWAY MINIMUM IMPROVEMENTS RECOMMENDED.

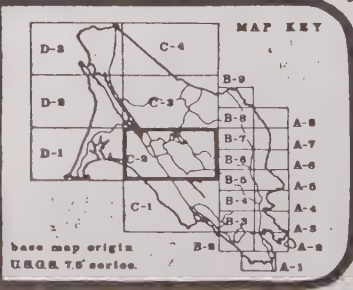
## MARIN COUNTYWIDE TRAILS PLAN

PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P&C COMM. 8/27/84 PC. 9/14/84 DATE 10/16/84  
 APPROVED BY BOARD OF SUPERVISORS  
 REVISED 12/85

- legend:**
- |                   |                |                            |                      |
|-------------------|----------------|----------------------------|----------------------|
|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | OCO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |



**MAP KEY**

**NORTH**

0 1000 2000 3000  
SCALE IN FEET

**C-2**





**NOTES:**  
 Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

**notes:**

1. PROPOSED TRAIL ALONG HWY. CORRIDOR MAY BE LOCATED ALONG IMPROVED ROAD SHOULDERS OR MAY BE LOCATED OFF-ROAD AS A SEPARATE PATH WHEN TERRAIN ALLOWS AND R/W CAN BE SECURED. THE ABANDONED R.R. ALIGNMENT ALONG THE SHORELINE MAY BE USED WHERE APPROPRIATE.

## MARIN COUNTYWIDE TRAILS PLAN

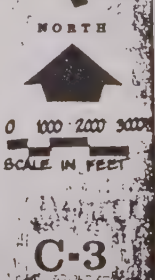
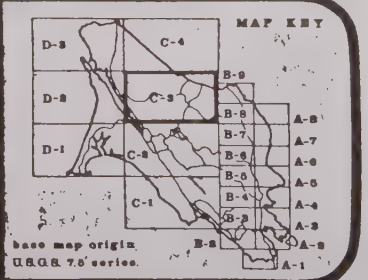
PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

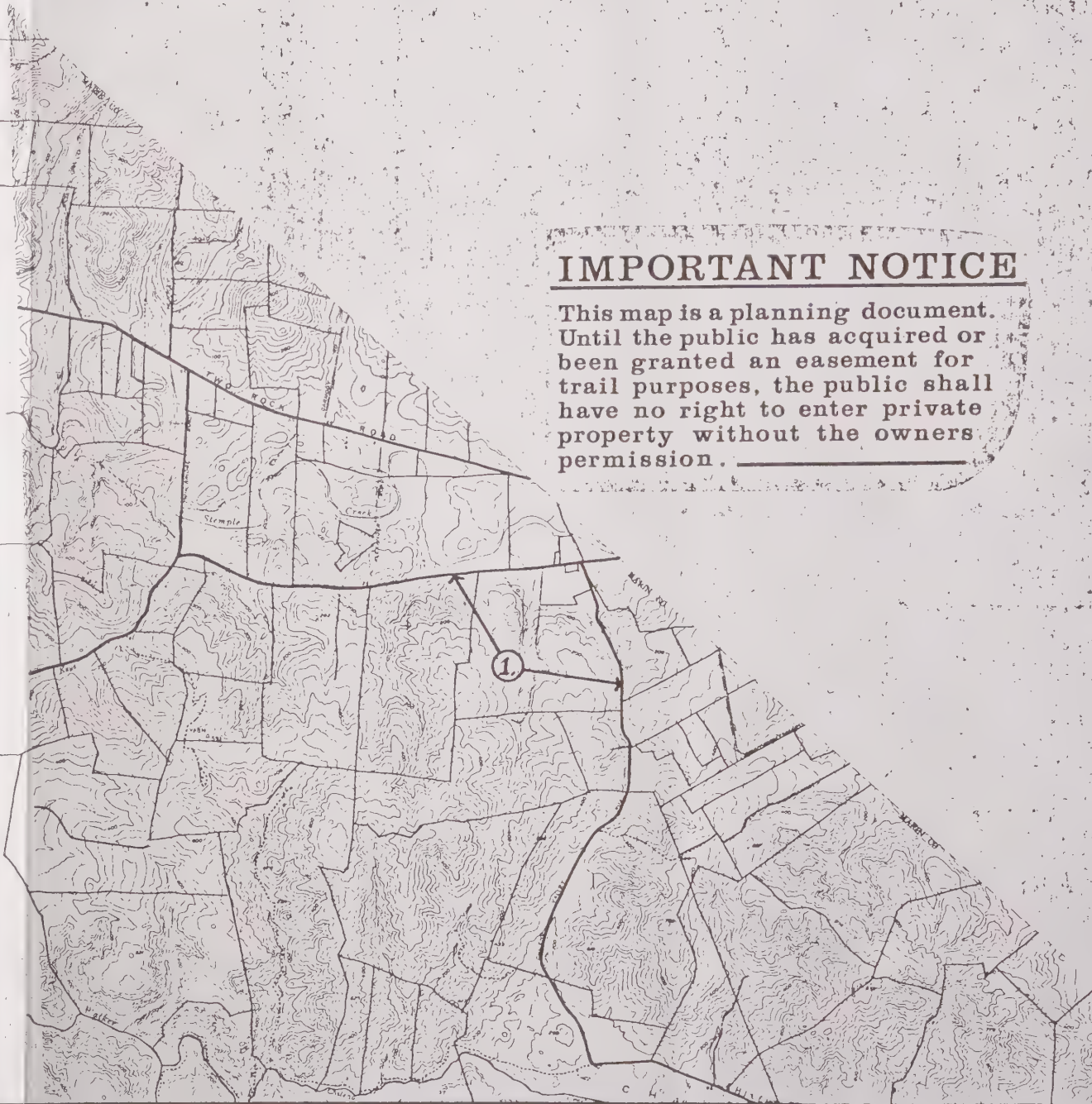
RECOMMENDED BY P.C. COMM. 8/22/84; P.C. 2/24/84 DATE 12/16/84  
 APPROVED BY BOARD OF SUPERVISORS DATE 12/16/84  
 REVISED 12/84

**legend:**

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | —              | —                          | —                    |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OC             | OC                         | OC                   |
| PAVED PATH        | OO             | OO                         | OO                   |







**IMPORTANT NOTICE**

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

**NOTE:**  
Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

**notes:**

1. BIKES SHARE EXISTING ROADWAYS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**MARIN  
COUNTYWIDE TRAILS PLAN**  
PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY PEC COMM. 2/12/84; PC. 2/14/84 DATE \_\_\_\_\_

APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84

REVISED 12/88

**legend:**

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | — — —          | — — —                      | — — —                |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | CCC                  |
| PAVED PATH        | OOO            | OOO                        | CCC                  |

**MAP KEY**

base map origin  
U.S.G.S. 7.5' series.

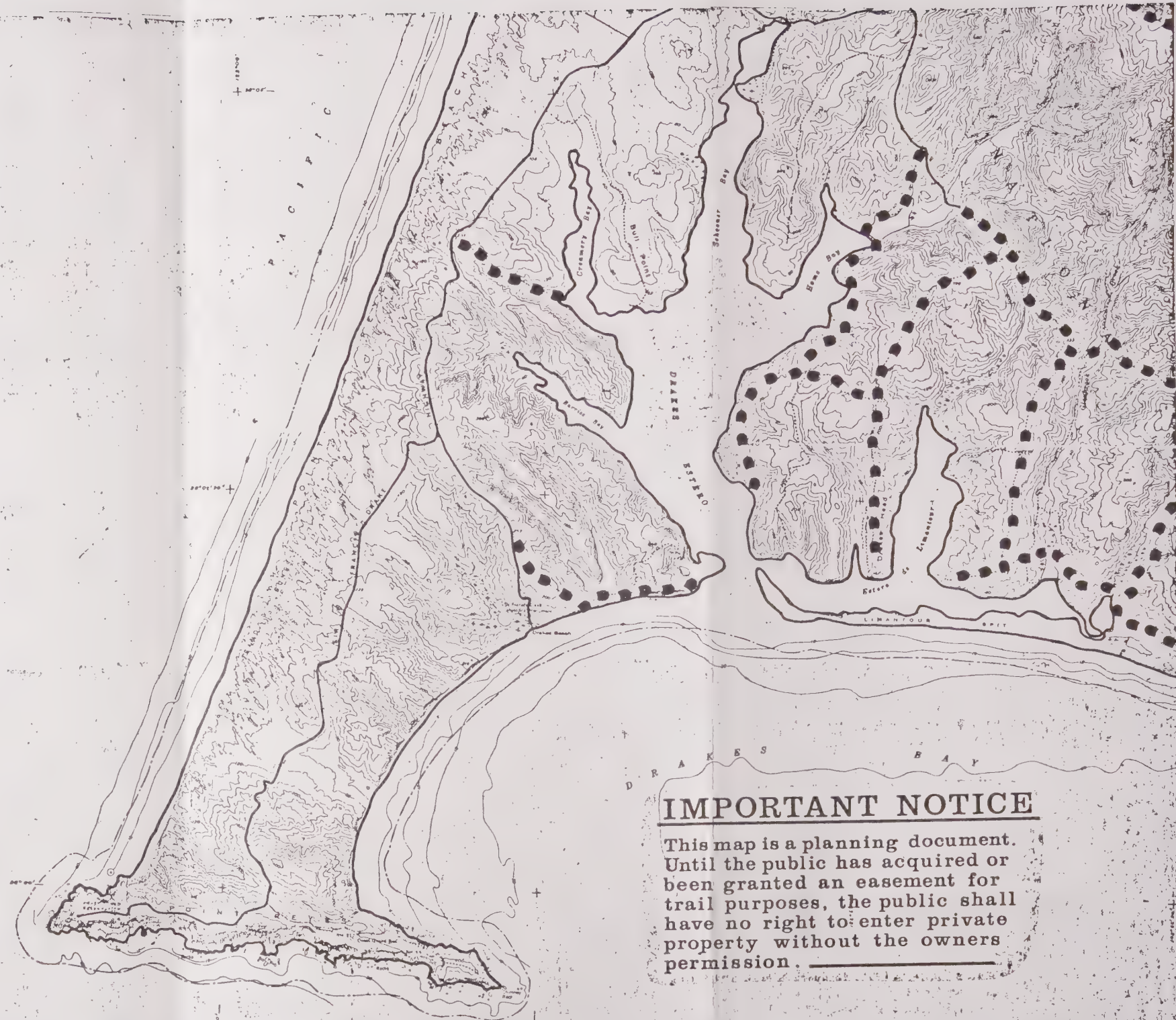
**C-4**

**NORTH**

0 1000 2000 3000  
SCALE IN FEET



**NOTE:**  
 Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.



### IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

**notes:**

---



---



---



---



---



---



---



---



---



---

## MARIN COUNTYWIDE TRAILS PLAN

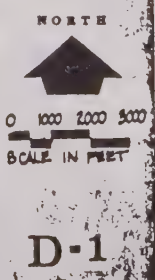
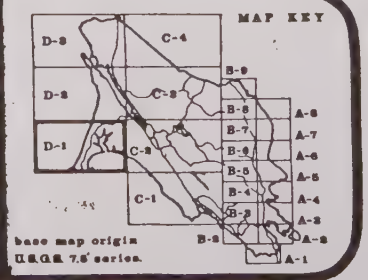
PREPARED FOR THE COUNTY OF MARIN AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P&C COMM. 8/22/84 ; P.C. 9/24/84 DATE 12/16/84  
 APPROVED BY BOARD OF SUPERVISORS DATE 12/16/84  
 REVISED: 12/88

**legend:**

|                   | TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|-------------------|----------------|----------------------------|----------------------|
| HIKING ONLY       | ---            | ---                        | ---                  |
| EQUESTRIAN/HIKING | CCC            | CCC                        | CCC                  |
| COMBINED USE      | OCO            | OCO                        | OCO                  |
| PAVED PATH        | OOO            | OOO                        | OOO                  |





## IMPORTANT NOTICE

This map is a planning document. Until the public has acquired or been granted an easement for trail purposes, the public shall have no right to enter private property without the owners permission.

### NOTE:

Use of mountain bicycles is currently allowed on much of the public trail system but is subject to change by individual public agencies. See text for additional information.

### notes:

1. PROPOSED TRAIL ALONG HWY. 1 CORRIDOR MAY BE LOCATED ALONG IMPROVED ROAD SHOULDERS OR MAY BE LOCATED OFF-ROAD AS A SEPARATE PATH WHEN TERRAIN ALLOWS AND R/W CAN BE SECURED. THE ABANDONED R.R. ALIGNMENT ALONG THE SHORELINE MAY BE USED WHERE APPROPRIATE.

## MARIN COUNTYWIDE TRAILS PLAN

PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY P.E.C. COMM. 8/12/84; 9/14/84 DATE 10/16/84  
APPROVED BY BOARD OF SUPERVISORS DATE 10/16/84  
REVISED 12/88

### legend:

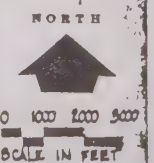
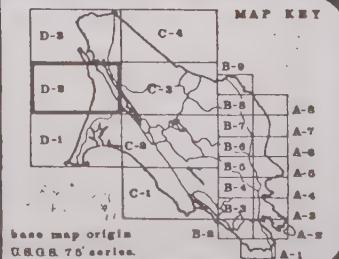
HIKING ONLY

EQUESTRIAN/HIKING

COMBINED USE

PAVED PATH

TRAIL PROPOSED  
TRAIL RIGHT OF WAY SECURED  
TRAIL OPEN TO PUBLIC



D-2





**notes:**

1. PROPOSED TRAIL ALONG HWY 1 CORRIDOR MAY BE LOCATED ALONG IMPROVED ROAD SHOULDERS OR MAY BE LOCATED OFF-ROAD AS A SEPARATE PATH WHEN TERRAIN ALLOWS AND R/W CAN BE SECURED. SONOMA COUNTY HAS DESIGNATED A SIMILAR PIKE ROUTE ALONG HWY 1 TO THE NORTH.

# **MARIN COUNTYWIDE TRAILS PLAN**

PREPARED FOR THE COUNTY OF MARIN  
AND THE CITIES OF MARIN COUNTY

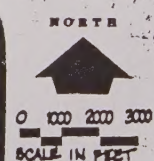
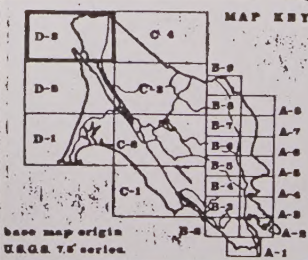
BY BRIAN WITTENKELLER LANDSCAPE ARCHITECT — PLANNING CONSULTANT

RECOMMENDED BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_  
REVISED 12/89

**legend:**

HIKING ONLY  
EQUESTRIAN/HIKING  
COMBINED USE  
PAVED PATH

| TRAIL PROPOSED | TRAIL RIGHT OF WAY SECURED | TRAIL OPEN TO PUBLIC |
|----------------|----------------------------|----------------------|
| —              | —                          | —                    |
| CCC            | CCC                        | CCC                  |
| OCO            | OCO                        | OCO                  |
| OOO            | OOO                        | OOO                  |



**D-3**



|                                |  |
|--------------------------------|--|
| COUNTY OF LOS ANGELES          |  |
| DEPARTMENT OF PUBLIC WORKS     |  |
| OFFICE OF THE COMMISSIONER     |  |
| 1200 N. GATE AVENUE, SUITE 100 |  |
| PASADENA, CALIFORNIA 91106     |  |
| TEL: (818) 797-1234            |  |
| FAX: (818) 797-1234            |  |
| WWW.COUNTYOFLOSANGELES.COM     |  |



U.C. BERKELEY LIBRARIES



C124902403

